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DIRECTOR.

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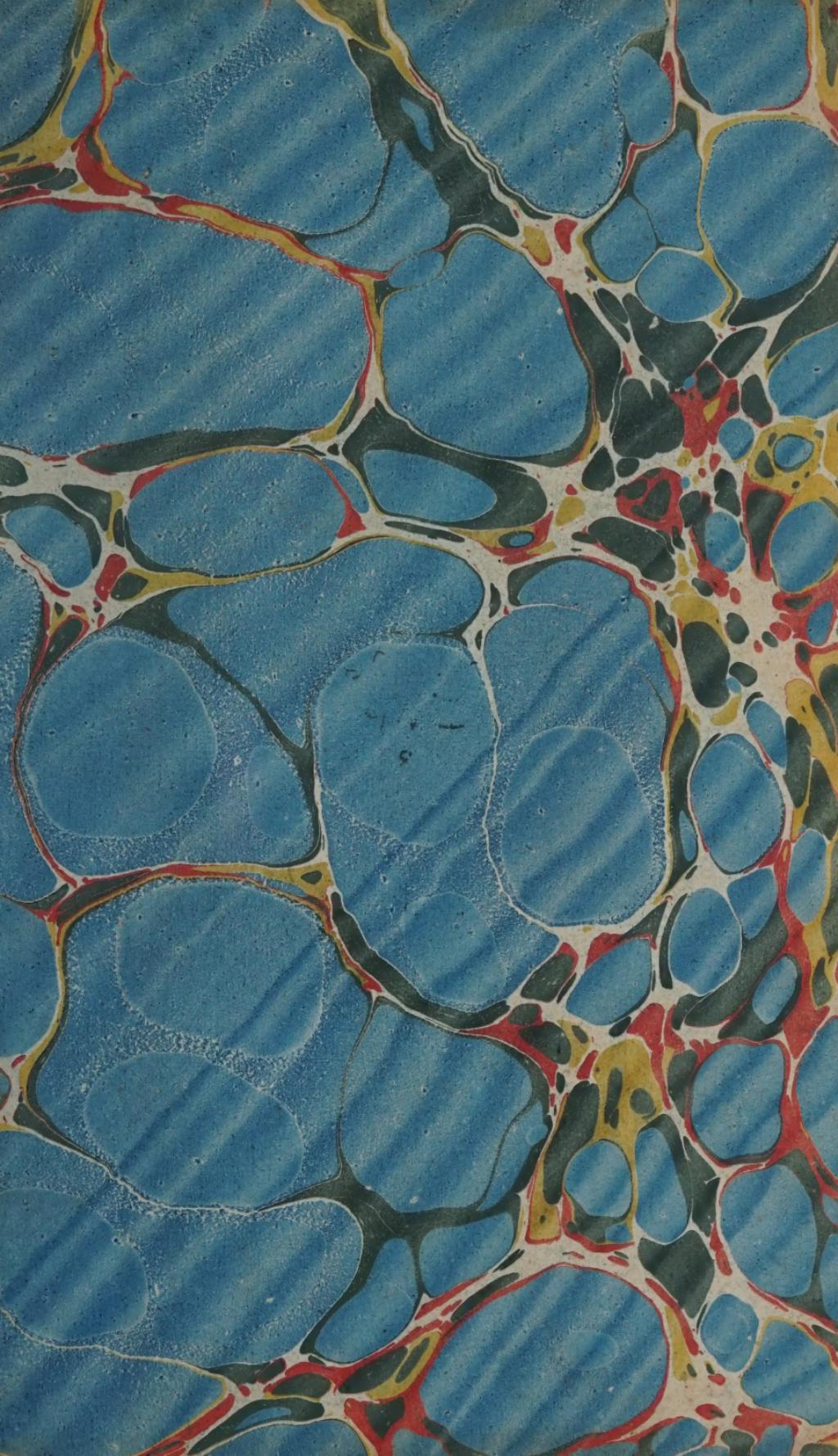
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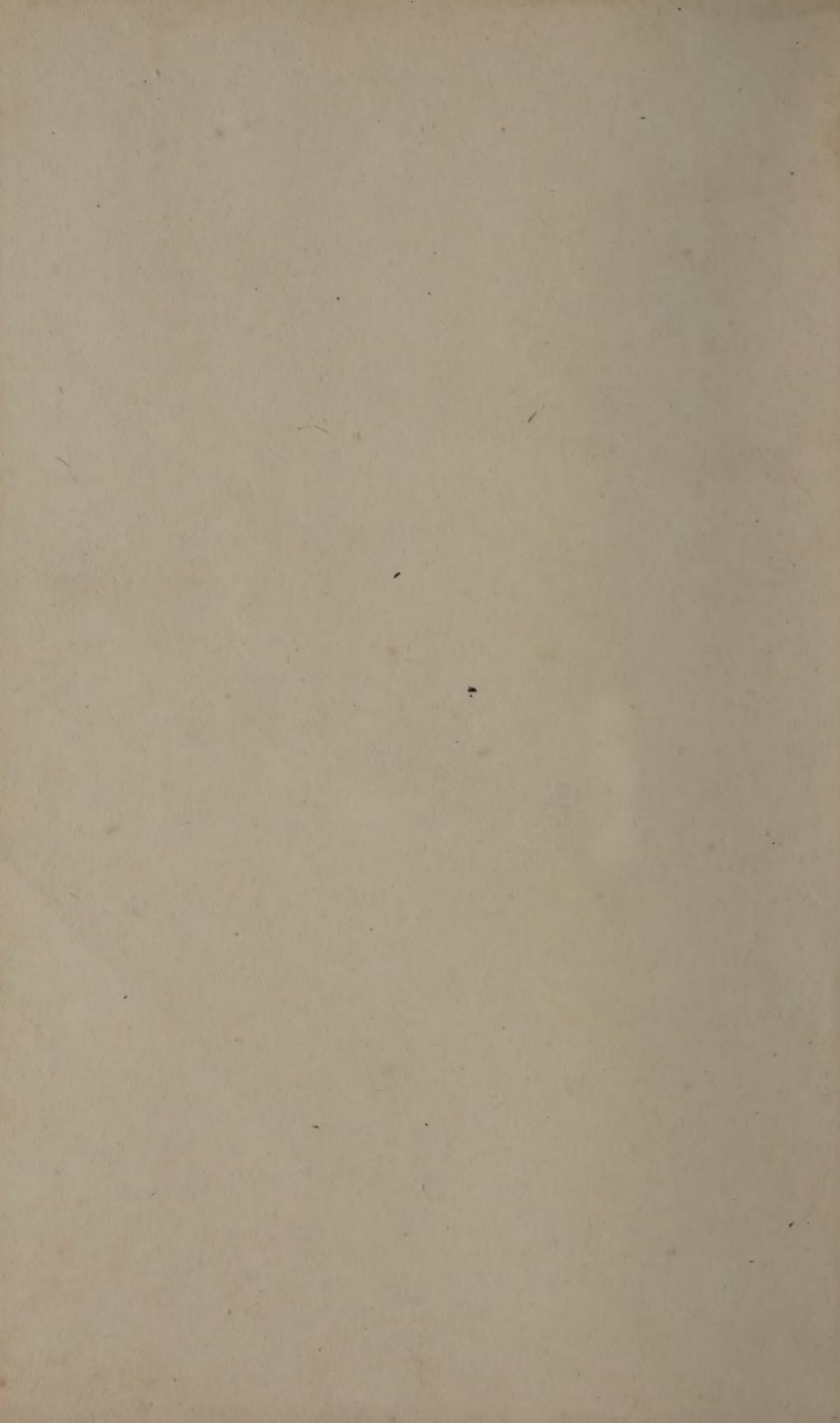
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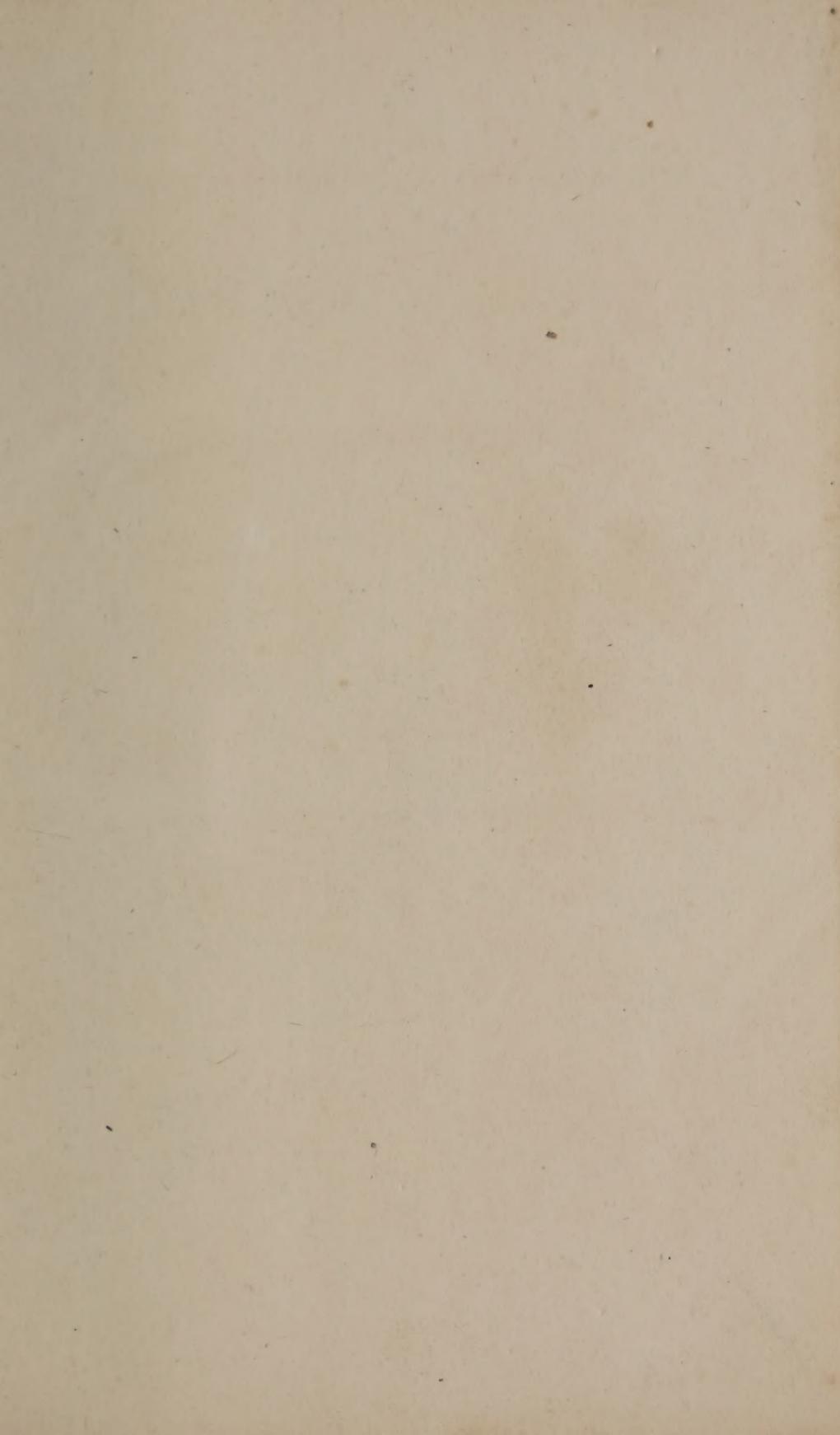
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Imperial Brazilian Mining Association.

EIGHTH REPORT

OF THE

DIRECTORS,

ADDRESSED TO

THE SHARE-HOLDERS,

AT THE HALF-YEARLY MEETING, ON THE 12th OF
MAY, 1830.

AND

AN APPENDIX,

CONTAINING

EXTRACTS OF THE VARIOUS COMMUNICATIONS RECEIVED
FROM THE MINES,

THE ACCOUNT OF THE PRODUCE OF THE

Gold Washings

From the 1st of July, to the 31st of December, 1829,

AND THE

Auditors' Statement of Accounts for the same period.

London:

1830.

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Imperial
BRAZILIAN MINING ASSOCIATION.

Chairman,
JOSHUA WALKER, Esq.

Deputy-Chairman,
TIMOTHY ABRAHAM CURTIS, Esq.

Directors,
WILLIAM PLAXTON ALLCOCK, Esq.
THOMAS GIBSON, Esq.
ISAAC LYON GOLDSMID, Esq.
GEORGE LEWIS HOLLINGSWORTH, Esq.
JOHN SHORE, Esq.
EDWARD SAMUEL WALKER, Esq.
MICHAEL WILLIAMS, Esq.
JOHN WRAY, Esq.

Auditors,
HENRY JAMES BROOKE, Esq.
THOMAS STOKES, Esq.

Bankers,
The BANK OF ENGLAND.

Solicitors
MESSRS. FRESHFIELD AND SON.

Secretary,
MR. L. J. SIMOENS.

Chief Commissioner in Brazil,
LIEUT. COL. J. M. A. SKERRETT.

Agents at Rio de Janeiro,
MESSRS. WARRE, RAYNSFORD AND CO.

REPORT.

THE usual period of the Meeting of the Shareholders of the Imperial Brazilian Mining Association affords the Directors the opportunity of again coming before them to render an account of the Mines and Establishment which are under their administration, and it is highly satisfactory to them to state, that a steady prosperity shines upon the Association. The produce of the six months between the 1st July, and 31st December, 1829, has been 2153 lbs. 7oz. 1dwt. 17grs., which added to that of the preceding six months, viz. 2037 lbs. 4oz. 12dwts. 15grs. forms a total from the 1st January, 1829, to the 1st January, 1830, of 4190 lbs. 11oz. 14dwts. 8grs. troy, a produce which must prove that not only does the precious metal abound on the Estate of the Association, but that good management

and skill have been exercised by those to whose superintendence the interests of the Association were confided.

To the ability, energy, and activity of Captain Lyon the success of the mines during his administration is in a great measure to be attributed ; to his judgment and firmness are owing the good order and comfort of the whole establishment at Gongo Soco ; his humanity and kind attention have been invariably directed to the happiness and content of the Negro population ; and to the influence of his deportment may be ascribed in a considerable degree the respect which is evinced by all classes in the Province of Minas Geraes towards the Association.

The services of Captain Lyon were to terminate on the 19th of March last, but the date of the latest intelligence the Directors have received from Gongo Soco not reaching to that period, they do not feel themselves in a situation at present to call upon the Shareholders to offer to Captain Lyon that vote of thanks and tribute of approbation to which they

confidently hope to have to direct their attention at an early period.

The Directors have, according to their usual practice, laid before the Shareholders from time to time, and as they were received, the accounts of the operations at the mines—copies of those extracts will be found in the Appendix to this Report, as well as a new section of the mine lately received, which shews the progress that has been made up to the end of the year 1829.

The general recapitulation of what has been performed will be found in the Mining Captains' half yearly Report of the 1st January, in the Appendix, and in the following Extracts from Captain Lyon's Letter of the 6th January.

“ As has been my custom at the close of two former years, “ I now, at the termination of the third, shall have the “ honor of addressing you somewhat at length, yet placing “ before you as concisely as possible the situation of your “ affairs at Gongo. As I have never failed by each ten “ days’ courier sending you a detailed account of our pro- “ ceedings, you are acquainted with what has been passing; “ but it may be as well in this letter to call some facts to

" your memory, and to give a general view of your property
" In the Captains' Reports, and also in my Letters, our
" operations are always stated, and a six months' recapitula-
" tion now goes enclosed from the mine Captains. In
" January of the past year the middle adit began to shew
" itself, and throughout the mine has produced abundantly.
" Gold has been produced in the Cumba, and a large shaft
" commenced, which will soon be down to the lode, and give
" great backs. Lyon's and Crickett's shafts have been sunk,
" and the former is at the middle adit, with gold east and
" west of it, and rapidly increasing backs. In the western
" ground I felicitate myself on having decided on working;
" the September returns have justified the measure, and our
" subsequent prosperity is chiefly from the same place. We
" have very considerably extended the mine both east and
" west, as the present plans now sent, and compared with
" those of December 1828, will more clearly shew you.
" More water has been obtained from *Socorro*, and a new
" rego of seven miles in length, through woods, along the
" face of cliffs, and in launders over an unbreakable rocky
" mountain, has been brought home to the mine, and will be
" (when staunched and repaired after the first rainy season
" expires, during which it of course suffers many breakages
" in its new banks, and from the cliffs above it) of incalcu-
" lable benefit to your property. In Crickett's shaft the
" pumps have since the 8th September been draining the
" mine, and we are now again sinking there. An engine
" wheel for Lyon's shaft is now in good progress, and under
" forfeiture to be completed by the 1st of April. New strakes
" have been made, and have amply paid for themselves, the
" little tanks belonging to them, roads, carts, cars, and
" negro labour, in the first week after they were set at work.
" The Engineer's department has been carried on with

" vigour. Many difficulties which not long since existed
" are now overcome. Our supply of timber is constant and
" good ; our roads in order for transport ; we are indepen-
" dent of our neighbours for charcoal, and have an effective
" establishment for that branch of supply. About six weeks
" more will witness the completion of the last residence for
" Englishmen. Many houses are covered with tiles. We
" have a Swedish tile maker now established on the estate,
" a large drying shed built, and clay undergoing mixing. An
" immense supply of candles is in store, and the difficulties of
" procuring them are now at an end. The contracts are
" stopped, and at all times the contractors are ready to begin
" to send in fresh supplies of this important article in mining.
" We have not once throughout the year been in any diffi-
" culty with our provisions : not a meal for the negroes has
" been short, or delayed by want of food in the store. I have
" established some contracts which can be depended on, and
" I do not expect that in future there will ever be a want of
" supplies. The pastures are as usual bad, and insufficient
" for the draught animals. The loss in bullocks this year
" has amounted to 110, while that of horses and mules, 36
" of which now work night and day at the mine, is compara-
" tively trifling. When the Board shall deem it proper to
" send carts and waggons from England the case will be
" altered.* The economy in this may be placed against
" delays at stamps and canoas, in bringing iron from the
" *engenhos* (manufactories) of *Matuca* and *Mattogrosso*,
" plank from *Luiz Soares*, and the deaths of bullocks.
" The people generally have behaved very well. I have not
" had occasion to reprove any of them for a length of time.
" Your officers have conducted themselves much to my

* They were sent out in February last.—Note of the Directors.

"satisfaction. The Board should, I conceive, endeavour to "retain those of whom I some time since wrote to the Chair- man. The Company is now on the best possible footing "with the Public Authorities, and your people agree admirably with the natives. It will be my endeavour to procure "for Colonel Skerrett those friendships by which I have been "enabled so materially to benefit Gongo, and establish the "high character of this little colony. The village is now "clear of all persons who are not actually engaged in the "Company, or living by my permission under surveillance, "in the practice of some trade. You will see in our census "a great number beyond the hired labourers; these are "women and children, and the cooks of the Englishmen's "messes. I am sorry that our stamps' produce for this "past month is not very good. Our *Socorro* rego has twice "broken away; the other regos have also been stopped "from time to time by earth falling into them, or by their "banks bursting from the excess of water after rains. The "spur wheels of the great stamps have all been newly toothed. "The upper six heads stamps were stopped for some days "by the launders breaking; the lower ones until three days "ago had only three heads going, and then on very poor "stuff, as we have no means of conveying the better heaps "of stuff to them, for want of carts and harness. I have "had a small canoe made by the side of the large stamps, "which cleans the stuff from the washing-house before it "goes under the heads, and now takes, by its produce, some- "what from that before placed under the head of 'stamp "returns.' When we have better means of transport, all "the stamps will yield far better. In December we have "always had most accidents in the mine, and at the surface; "and considering the work there has been to do, with "crushes, breakage, want of plank and iron, owing to the

"state of the roads, and the great mortality of bullocks, even
"from dragging timber, we have made a good monthly
"report. Ten carpenters have signed a contract for Lyon's
"wheel, to be of 40 feet diameter, with 3 feet breast, and
"112 buckets, to be in its place in three months, for £150,
"to be made out of corps. This was the sum proposed by
"Mr. Baird. They are now making good progress with the
"heavier work of it."

It will be observed by these extracts, that several important works have been completed, and that not only increased means of carrying on the operations have been supplied, but the successful application of them has been proved, as in the case of the stamps, the machinery at the shafts, and the rego, or water-course; which latter, in particular, the Directors are taught to believe will be an invaluable addition to the property of Gongo Soco.

It is with much satisfaction the Directors have to report favorably of the conduct of the officers and servants generally on the Establishment. The colony has very considerably though gradually increased, and on the 31st December last consisted of 170 Englishmen, and 396 Negroes, besides 216 native labourers, who are hired for various services and undertakings.

At the last half yearly meeting the Directors introduced to the Shareholders Lieut. Col. Skerrett, whom they had engaged to succeed Captain Lyon as Chief Commissioner in Brazil. Col. Skerrett arrived at Rio de Janeiro on the 2nd January, and proceeded to the mines on the 26th February, accompanied by the Rev. Mr. Dodgson, Chaplain to the Establishment.

The Directors have every confidence in the zeal and judgment of Col. Skerrett; but it is with concern they learn, that the commencement of his administration will be under circumstances which require some management. Mr. Oxenford, it appears, taking advantage of what he conceived might be an embarrassing moment to the Association, when the administration of its affairs was to change hands, has ventured to renew his pretended claims, and his attacks. The Directors are to this moment unacquainted with the precise nature of Mr. Oxenford's claims, although he has given the public the benefit of three letters in the newspapers, which letters the Directors have not thought it worth their while to notice. They sum up the whole case of Mr. Oxen-

ford in a few words. When he returned to England in December, 1826, he made claims on the Association, which the Directors did not consider themselves justified to admit, and which were referred, by the agreement of both parties, to the decision of the Committee of Shareholders, appointed on the 8th February, 1827, who had access to, and most laboriously examined every letter and document in the Office, as well as Mr. Oxenford's own statement, and whose report will be found in the second volume of the Reports of the Directors, page 28. By this decision all points in dispute between Mr. Oxenford and the Board were set at rest, and the sum was fixed which he was to pay as the balance of his account, and which he did pay accordingly. He publicly, at the meeting of Shareholders, expressed his satisfaction with the decision, and declared his readiness to co-operate with the other Directors for the benefit of the Association. Since that time the Association has had no transaction whatever with Mr. Oxenford individually, who sat at the Board for fourteen months after the decision of the Committee, without preferring any claim. In respect to the lien which Mr. Oxenford pretends to have

upon the property of the Association, if he really performed his duty like an honest man, he must have completed every act to place the Association in the sole possession of the property ; if he did not do so, the omission must have been the effect of inadvertence or design, neither case warranting a pecuniary reward ; but, according to the best legal opinions, every thing has been done which the law in Brazil requires for the security of the property to the Association.

The Directors in their preceding Reports have abstained from making particular allusion to their Negro establishment, but it has been an object of the greatest solicitude with them, from the moment they were apprised of their being owners of negroes, to endeavour to soften and ameliorate their condition. A system of order, regularity, and cleanliness has been established amongst them, which has conducted as much to their health as to their tranquillity and happiness. They are well clothed and well fed, and are the first objects of consideration in all contracts for supplies. Means have been adopted for the improvement of their moral feelings, and for

the education of their children ; and however the Directors may deplore the necessity which exists of their having recourse to such a species of labour, it is highly gratifying to them to be assured, that the negroes are sincerely and gratefully attached to their employers, and that an example of mild and kind treatment has been successfully exhibited, which has excited the observation and admiration of the Brazilians, and will no doubt contribute in a great degree to the amelioration of the condition of negroes generally in Brazil. The humanity, kindness and judgment of Captain Lyon have been most effectively displayed throughout the whole of his command in their treatment. Very many facts may be appealed to in proof of this ; and the Board are most happy in being able to report, that of 45 children born since Captain Lyon arrived at Gongo, 40 were alive on the 1st January last ; whereas, previously to his arrival, only one child had been born alive. This fact is a convincing proof of the value which the parents now attach to life, since the introduction of the kind treatment they have experienced. In all the branches also of our employment are to be found active and intelligent negroes, performing

various duties most efficiently ; and in every such case it has been the practice of Captain Lyon to reward those services in the same manner, though not to the same extent, as if they had been rendered by free labourers. It is the firm conviction of the Directors, that Captain Lyon has not merely rendered the condition of the negroes comparatively contented and happy, but susceptible of such further improvement as will in the course of time raise them to the level of free labourers. The Shareholders may rely on the Directors for carrying on the same system of treatment as Captain Lyon has so successfully begun. The instructions to Col. Skerrett have been explicit on this subject, and the Directors trust to him for a continuance of every possible kindness and attention to this part of the establishment.

Colonel Gama's resignation having been accepted, that gentleman left the service of the Association on the 30th September last ; and the Directors feel it an act of justice to state, that his conduct during the whole period of his engagement was such as to merit their approbation.

In Captain Lyon's letter of the 22nd December, 1829, he announced Mr. Baird's resignation of the office of Civil Engineer, and no new appointment has since taken place. In the mean time the duties of his department are efficiently conducted by the Assistant Engineer, Mr. Hodson.

The Directors announce with regret, that the Legislative Assemblies at Rio broke up on the 3rd September last, without coming to a decision on the very important question of Duties. The subject will be again brought forward during the present Session, and the Directors confidently hope that the justice of their claim will be admitted.

The Directors have now to call the attention of the Shareholders to the financial affairs of the Association, as exhibited in the Statement signed by the Auditors, which will be found in the Appendix.

Although the expenditure of the last half year, as detailed in this Statement, exceeds that of the preceding one by £7528, yet as no sum is now required to increase the balance in hand (as was

then the case to the amount of near £8000,) and as the receipts from the sale of gold in the present account exceed those of the last by £4535—the Directors are enabled on this occasion to increase the Dividend without cramping their operations; for, as appears by the Statement, the cash balance, after charging the expenses actually paid to the 31st December last, and crediting the full amount of the produce raised up to the same period, is £54544 5 7

Out of which the Directors
propose to make a Divi-
dend of £3 10s. per Share,
which will require £35000 0 0

And adding thereto the sum
to be reserved in confor-
mity to the Deed of
Settlement 3888 17 9

Together. . £38,888 17 9

There will remain. . . . £15,655 7 10
applicable to the expenses of the present half year.

The explanation given at the General Meeting in November last, will have prepared the Shareholders for the excess of expenditure of the last

half year over that of the preceding one, which arises in a great measure from the large number of miners sent out to Gongo Soco in the year 1829. The excess would have been still greater than it is, had all the wages been paid up to the 31st Dec. but the arrears, which will augment the charge under the head of "Salaries and Wages" in the next account, will (the Directors confidently hope) be met by a large reduction under other heads.

First, the expense of sending out men will be less by about	£2220
Secondly, the charge for the new rego, the balance of which was paid in December, ceases, causing a diminu- tion of	1000
Thirdly, no further expense will be incurred for can- dles, of which a supply equivalent to one year's con- sumption has been provided by Captain Lyon. The charge for candles between the months of July and December last is about	1000
Fourthly, the charge for miners' clothing sent out at the recommendation of Captain Lyon for sale to the men, not only will not recur, but a proportion thereof, to the amount of sales realized, will appear to the credit of the account. The sum now debited on this score is	885
These four items form a total of.....	£5,105

In the several works nearly finished there will also be a considerable diminution of expenditure,

and it is expected that the services of many of the native workmen will be dispensed with altogether. On the other hand, some new expenses will no doubt occur by the change of Chief Commissioner, and a further force sent out in the present year, consisting of ~~about 100 men~~ adit i

10 Miners to work the new adit,

6 Artillery Drivers for the waggons and carts,
and occasionally to be employed in con-
ducting the gold to Rio,

1 Carpenter,

3 Blacksmiths,

6 Clerks.

The pasture land mentioned in Captain Lyon's letter of the 17th February, will, if purchased, also create an addition to the expenditure, but the total, it is expected, will fall short of that of the half year that is past.

The Directors conclude their Report by repeating the acknowledgment of their thanks to the Shareholders for the continued confidence manifested towards them, which it is at all times their study to

merit ; and the Directors fix a Dividend out of the nett profits of the concern of Three Pounds Ten Shillings per share, to become payable at the Office of the Association on and after Thursday the 27th instant, to the Proprietors of Shares who appeared as such in the books of the Association on the 15th of April last.

JOSHUA WALKER,
CHAIRMAN.

Winchester House, Broad Street,
12th May, 1830.

APPENDIX.

APPENDIX.

EXTRACTS OF LETTERS

FROM

CAPTAIN LYON the Chief Commissioner at the Mines.

To THE CHAIRMAN.

Dated Gongo Soco, 7th August, 1829.

“ My last despatch bore date 30th July, since which Mr. Randall has left for Sabará, where I believe he will receive 86 bars, all that are at present smelted.

“ By Mr. Randall’s remittance you will receive the whole of last year’s produce.

“ We are getting tolerably steady produce, and, I am happy to say, that the 14 fathom end is now advancing again,

“ Every preparation is making for sinking the new engine shaft. Wood is cut and coming home for Lyon’s wheel : you will observe that the produce of the stamps is falling off, six heads only work, it is the middle of the dry season, and our water is again scarce, although by my arrangements at *Socorro*, we have at least a third more than we had last year, and 14 canoas are now able to work ; last year at this time we had only six.

"The leet is advancing well, and then we shall be independent. The tank building at the *Corrego* gets on rapidly—I saw it yesterday, and am much pleased with its strength and compactness. It will give us one-third more water to the new water course—our works are all in good progress.

"In the village Mr. Tom is pushing on his workmen as much as possible to prepare for the reception of the expected men: I wish that they had all arrived. The mechanics, such is the abundance and magnitude of works in hand in their department, are sadly wanted.

"I do not speak of the Engineer's work, as his letter very clearly states what he is about. In one month at farthest, we shall begin to sink the new engine shaft, and I hope to have it down to the middle adit by the time the level comes up, constituting backs in 7 and 14 in the meantime, by the progress of these levels, the first of which is now some fathoms west of the underlay."

Dated Gongo Soco, 14th to 17th August, 1829.

"I last had the honor of addressing you under date of the 7th August, since which the duplicate of your letter of the 23rd May and your favor of the 6th June have reached me.

"I rejoice that the accounts you had received up to that date had infused a great degree of confidence into your minds, as well as into those of the Shareholders. With the exception of June, which after all yielded 170 lb. we are going on famously, even with but little ground opened, and few men at work on the gold.

" I learn with pleasure of the arrival of ten men by the Frolic, and of your promise to send by the next two packets five men and five lads in each.

" We cannot now complain as formerly of slackness at the Mint, every possible attention being paid to expedition, and, except a one week's want of corrosive sublimate, we have had no impediment for many months.

" The middle adit has just cut the lode, and is, at present, the deepest adit to the mine.

" I look anxiously for the arrival of the long expected steam engine, it will soon pay its cost with stamps.

" Our mine, as you will see by the report, goes on steadily and well, although we have but little ground for immediate expenditure.

" The middle adit has reached the lode, but it is so very wet, and the ground so soft, that we must await its draining, as we did in the 7 and 14 fathom levels. In the mean time, we are just preparing to turn from the cross-cut, and drive west upon the lode. It is remarkable throughout Gongo, that the wettest, softest, and most treacherous part is that accompanying the branch; we know that we are on it by having carried down a winze from the 14 fathom, which winze was holed yesterday. I think we may allow a week to get 'in course' for driving: Lyon's shaft is now down nearly two fathoms, the ground quite dry. Our last new strakes, six in number, are quite a picture from their plan and position, and have yielded on an average for five weeks one pound and a half of gold per diem! this is from the

large heap of stuff which I long since informed you lay near the washing house. We take it down in our English cart, 25 loads a day, which in quantity is more than five bullock waggons and 30 bullocks could accomplish."

Dated Gongo Soco, 28th August, 1829.

" My last despatch bore date the 17th instant, since which I have had the pleasure of receiving your orders of the 19th June, and a duplicate of that of the 6th June.

" In my former letters, which will long since have come to hand, I offered some explanations as to the produce of the stamps, but shall dwell more at length on the subject in order to set before you more clearly what are the powers, present workings, and future prospects from these important machines.

" In the first place I must inform you, that the stuff from the mine is *never* carried in the first place to the stamps. If rich it goes to the washing house, is sifted, and picked, and the stones of jacotinga which shew no gold, and have been well washed in order to free them from any auriferous matter which may be sticking to them, *then*, go to the stamps. Inferior formation goes to the stakes or canoas, where it undergoes a long washing in a peculiar manner, somewhat similar to that of tin in Cornwall. From the head of the strake the rough stones are scraped and thrown out, these are carefully picked up by female labourers, and the apparently unproductive lumps, which are very abundant, are carried to the stamps, or added to the very large heaps already accumulated, and of sufficient magnitude to employ the stamps for some years, even if never replenished, as they

are by the daily refuse of the stakes. From these 'rough stones' we generally obtain our produce, but once a week the deposit in the large tubs of the washing house is cleared out, and put, without any other stones being united with it, through the stamps.

"This, or the other produce, runs in the crushed state over two long stakes, over which a bullock's hide with the hair on is spread, at times the stream is turned off, and the hides are washed in a large box, and once or twice a week, according to the richness of the stuff, this accumulation is carried to the washing house, and washed by *batea*, thus it is that when a day's produce from the stamps is noted, it is actually that of several days and nights, and the only clear way of averaging the diurnal profit from the stamps is to divide the monthly return by the number of working days.

"At present we cannot, from the want of water at this season, and our new rego not yet being home, average above six heads at work day and night, six heads more will soon be at work with another wheel, all the machinery being completed, and merely waiting for so apparently trivial a want as plank to lay down 50 fathoms of launders, and make some new canoas, and the small wheel made by bargain, for six heads more, will be at work in a fortnight.

"I am truly sorry that you are disappointed at the probable cost of the rego or water-course. In my estimate in March last I stated that I could not calculate properly, not knowing what nature of country the water course would have to pass through. I regret having named a sum, as it has caused disappointment, for had I not named it, I could with more force have told you what I now beg to state, that had

we made the rego, we could not have done it for less than twice eight contos, and probably in thrice the time. There are some hundred fathoms of launders carried round the brow of an almost perpendicular rock, others along the face of a mountain of *canga*, or conglomerate of iron, and in the soft ground, at least four miles of the six, are through thick woods, where the roots of trees offer great and constant impediments. In my estimation the future value of Gongo when worked as a *deep* mine will much depend on its supply of water for machinery, so I beg the Board to put down the new rego as one of the most important acquisitions they have made.

"There is a mine in this province almost as good as Gongo, which stands idle for want of water, and once, before the breaking up of a Company who worked it, when yielding great riches, paid half of its produce for a stream of water from another estate to wash the remainder !

"I am happy to find that the steam engine is at length shipped—from Mr. Baird's description of it I hope we can apply it to 18 or at all events 12 stamp heads, and I propose that it shall be continually used as a substitute, first until a wheel can be made for the proposed stamps, then until another wheel can be prepared for other stamps again, and so on until we have taken up all our water levels (years hence by the bye) after which it will deserve to have an independent stamping for itself. I hope that the Agents will be enabled to send up the cylinder between two mules like a sedan chair, I shall suggest it to them.

"I must now turn to the mine, the produce of which is again for the moment small, as we have but little backs to

pick and choose from, and the place near the old engine shaft is worked away.

"The unfortunate 14 fathom end is again stopped, another sad drawback to us. The run there extended itself upwards to within a few feet of the bottom of the 7 fathom, and to avoid accidents, we have stopped it until Shore's shaft is down, which will soon be the case; in the crushed ground much gold has been found, and the end must be rich. I lament, however, that we are kept idle there.

"The 7 fathom end is poor, Lyon's shaft is down three fathoms, and they have come to water; the eastern ground draining easily: we are about to drive a cross-cut under it from the middle adit, which will save both time and trouble.

"Tom's shaft is also down to water, at about 14 fathoms, it is as yet tolerably '*easy*', but we shall, as soon as the pumping commences at the new engine shaft, prepare our small pumping gear for the *Cumba*. You are aware that we are coming in with an adit 12 fathoms depth in Tom's shaft, by this we shall save much weight and work for the pumps. The labourers there are making excellent work, and they have scarcely less distinguished themselves in Hollingsworth's shaft, which is timbered in a great measure by them, and holed to the middle level.

"Walker's and Curtis's shafts I have long since caused to be filled up, as being no longer of use, and liable to accidents; a new shaft is now going down, also honored by the name of Walker's.

"On the 25th I dispatched Mr. Wood to Sabará with

286 lbs. 5oz. 4dwts. 12grs. of gold, which has made 58 parcels, 10 others were already at the Mint. I hope early in next month to send down 68 bars."

Dated Gongo Soco, 8th September, 1829.

"I yesterday had the pleasure of seeing the great wheel working the pumps in the new engine shaft, (now named by the Captains after Mr. Crickett,) making rather more than eight revolutions per minute, with a five foot stroke in a 10 inch box, and working six stamp heads! which it can keep up day and night, a great, and by some an unexpected advantage. For above six weeks we have scarcely averaged more than six heads day and night at the great stamps from the want of water at this dry season, so by well balanced rods, and pumping gear, we shall add so little to the duty of the great wheel, as to enable us still, in addition to keeping Crickett's shaft 'in fork,' to have as many stamps going as before.

"We have our two six head stamps now finished, wheels, frames, every thing, and they stand idle for want of so apparently trifling a thing as about 50 dozen of plank for launders, and the new stakes attached to them; all required by our present scarcity of water. Had the new water-course, or great water-course as it is designated, been home, these stamps, in this time which has been lost, would have paid all its expenses.

"I now turn to the state of the mine. In three days we shall begin to sink Crickett's shaft, which has already been much drained by the seven fathom level, (although it is

perhaps fourteen fathoms directly north of it,) as may be proved by the water having lately sunk five feet. Lyon's shaft is going down dry, having been most effectually drained by the cross-cut from the middle adit, which being now completed, will enable us to proceed westward on that important level. Shore's shaft is holed to the 14 fathom, and before the end of the week we shall take out the boards from the end, and begin driving, I have every reason to expect on good ground. The 7 is wet and poor—the eastern ends very kindly. I send you with the remittance a flat prill weighing one ounce, from the eastern backs, very peculiar looking gold, and the largest yet obtained from that part of the mine.

"The arch close to the underlay shaft, from 7 to shallow adit is now worked out, and a most productive piece of ground it has been. That a little east of the crush in the 14 fathom has been very rich, and with a small steady produce from the east has supported us of late. We still have gold there, but I wish we had more abundant backs opened to us, which we cannot yet expect until the engine shaft goes down, and we have hands pushing forward all the levels.

"Having just received Mr. Baird's report, I am reminded in it of my journey with him to the mountain. His labours there have been quite extraordinary, and his roads of communication for facilitating the transport of wood to the shoot admirably contrived.

"There are two vallies on the face of the mountain over the mine, which I have arranged with him shall be held sacred during the dry months, and only used in the rains. Each I conceive contains at least two winter's timber close at

hand. From what I could see, without penetrating the closely matted forest, we have yet a supply for many years. The *preza*, or dam, of which he speaks, is the tank wall mentioned by me for lifting the small water-course into the great one. I have effected this for something less than 300 milreis, and about 6 or 700 gallons per minute is thus added to our stock. Above this level I have desired that a wall nine feet high may be built, and an immense reservoir will thus be obtained, and is always ready for use in case of the great dam, leet, or any other water-course, being accidentally stopped for a time, which has sometimes happened in the rains, when trees, or masses of earth, are liable to fall in and choke the leet."

Dated Gongo Soco, 18th—19th September, 1829.

"At the moment of setting down to write this letter, (my last bore date the 8th instant,) intelligence is brought me of one hatful of the branch from the last winze going down from the shallow adit on the end of the 7 fathom level *west*, having yielded 11 lbs. 6oz. Odwt. 10grs. of gold! Of our yesterday's produce, 15 pounds were from the same place, and the two preceding days were principally from them also.

"The eastern ground which is to be drained by Lyon's shaft will I hope be equally good, but I am not very sanguine about it, as the branch is there (although generally continuous) very fine and thin, and the largest prill which has yet been found there weighs only one ounce.

"A fair sample of gold has for the three days past been brought from the end of the middle adit, quite sufficient to

shew that we are driving on the vein, and that it is very 'kindly.' The whole of the ground there is however so very wet, that we cannot well see our way, but I have seldom observed a more promising looking branch than that which dips across the end. I should not be astonished if we have a favourable change there in the course of one or two more post days, as the eastern ground drains very speedily. A new whim has been built and erected for Crickett's shaft, on which we commence sinking on Monday, as it is advisable to let it have the benefit of two or three days pumping and draining before hand.

"The *rego grande* is now in sight of the mine, but in such hard and difficult ground that its progress will be somewhat slower than hitherto. We are now letting the water of the *Corrego dos dous Irmaos* rise in the *preza*, which I have caused to be built for it. To morrow I hope to see it in the *rego*.

"I have begun to perform our mine work of dragging timber, carting stones, planks, &c. by horses instead of bullocks, and find them answer much better.

"18th. Our yesterday's produce was very good, and with the exception of a pound or two from the 7 fathom west where we have gold in sight at eight fathoms from one place to the other, and in the last winze a line of ten feet, bearing gold and manganese from half an inch to an inch in thickness, promises us some good days produce.

"19th A.M. In hopes of hearing from Mr. Ash, I have delayed to the latest moment announcing to you that on the 15th he left this place for *Sabará* with 128 lbs. 9oz. 12dnts.

15grs. in gold dust, and specimens in a box made by one of the carpenter's apprentices. I believe that he will take 68 bars with him to Rio."

Dated Gongo Soco, 25th September, 1829.

"A *false* report, as from the Brazilian Consul at Bourdeaux, having announced that Gongo mine was yielding 100 lbs. per diem, and hence created a considerable sensation on the Stock Exchange, it is an infinite pleasure to me to send you a *true* one, that the joint produce of yesterday and to day was 210 lbs. 2oz. 8dwts. 6grs. That of the 23rd being the immense quantity of 137 lbs. I have, at 10 A.M. the moment of my writing, left 30 lbs more cleaned in the washing house, the whole, with a trifling exception, being from the winze of the 7 fathom level, mentioned in the beginning of my last letter. This is about under the place where we had gold in the shallow adit soon after I came up, and by the agency of Crickett's shaft, I hope that we shall find the branch as rich as on the 14 fathom level. I cannot speak in too high terms of the activity of Captains Jennings, Prideaux, and Hambly, and Mr. Peters, during the last three eventful days.

"Those whose night duty it was, remained by day also, and it is mainly owing to their great and cheerful exertions, that such immense riches have been taken out.

"Mr. Wood is at this moment starting for *Sabará* with 365 lbs. 6oz. 2dwts. of dust, the largest remittance ever sent there. You will find a long beer account against you, and some few *patacas* (money) to the washers, pounders, carriers, &c. but these are trifles when we look to the produce

which they have stimulated our people and the labourers to bring out, with very extra work.

"28th, Mr. Ash *did*, as I suspected he would, take 68 bars. I am now sending off Mr. Mason to *Sabará* with 272lbs. the produce of the three last days.

"Five men and five lads, the party by the Melville, arrived safely here yesterday evening—I expect Mr. Randall with the others in a day or two.

"Our rains are beginning rather early this year, and the showers begin to be heavy, but even without them our great wheel performs the mine duty with the stamps, pumping at the same time, as it did before the rods were attached. I now expect that it will soon work the 12 heads if the rains set in.

"*Therego grande* (water-course) is already as far advanced as Edward Walker's shaft, it almost cuts its collar, which by reference to the section plan, will give you a good idea of the height at which it reaches the mine."

Dated Gongo Soco, 8th October, 1829.

"I last had the honor of addressing you under date of the 25th to 28th ultimo, since which no recent dispatches have been received by me.

"The mine report, although very excellent, looks but small after our last return. The ground is still in famous

produce, but we have been somewhat impeded by having to timber it very carefully, owing to some heavy rains having set in, and the water finding its way through the old western backs, to the place whence our produce was taken out, and which, until this fall of rain, stood well without timber. I have caused several fathoms of launders (taken, I am sorry to say, from the six head stamps which have now *four* times been nearly ready to work, and then robbed from our poverty in plank,) to be carried across the surface for the tail water of the great wheel, and torrents from the mountain, and we are all secure again, as yesterday's produce testifies. Excellent progress is making in Crickett's shaft; we shall soon be down as low as the 14 fathom level, to which a cross-cut will be driven.

“ Two days ago the great water-course, but not its water as yet, reached our great wheel; it comes in exactly as the measurement of Captains Jennings, Prideaux, and Hambly gave.”

Dated Gongo Soco, 18th October, 1829.

“ I last had the honor of addressing you under date of the 8th instant, since which none of your orders have reached me. Col. da Gama and family left Gongo the day before yesterday, and I am now about to remove the office and money store, and occupy as residences for feitores, &c. the house lately occupied by the Colonel, which will be of great advantage to us. Our produce is, as you will see, very good, but our richest spot is, I am sorry to say, after much timbering, and various contrivances for its preservation, for the *present* shut up, as we yesterday decided on filling it with blocks of wood and turf, in consequence of the extreme wet

state of the ground above it, (which I mentioned in my last letter,) and which after many ineffectual attempts to stop the drain, has become worse now that the rains have set in. In the *dry* season the above place will be again opened, and after all we only for a time lose the produce of a very few fathoms of ground, for east and west of it our gold is still coming out, and the spot taken altogether, has been the richest ever opened in Gongo, with the merit of having gold still in sight for some fathoms ; but whether it will *continue* so rich I cannot yet say.

"I announce to you with pleasure that we have cut a strong branch of gold in the middle adit, but we cannot see it, owing to the more than usually wet state of the end which is very treacherous and soft, but the strakes have to day given nearly 2 lbs. from the stuff taken out ; and we have for some days daily obtained by the same means stones with gold adhering to them, and small prills as large as half almonds, we *now* have them of an *ounce* weight, and I am making a collection of them to send to you.

"This is just what happened in the 14 fathom level when it dried ; we saw, and took advantage of the riches lying there : when *this* drains, I expect to the full as good fortune. To hurry this as much as possible, and to prevent the surface water getting down, I have given orders to fill up the only remaining part of the Talho Aberto, *east* of the mouth of the old or shallow adit. This will be done from the rising ground on which the old kitchen stood, and the smith's shop stands, and will cost a few milreis for labour, but a *poor* hatful will doubly pay it, and I think it best to take this measure at once, as I wish you to see every part of the mine commenced under my administration giving you good returns before I go.

" Possessed as you are of a splendid museum of Gongo gold, it perhaps is folly in me to tell you, while the specimens are under your own eyes, that I have every reason to believe that the palladium is not admixed with the gold, but accompanies it *superficially*.

" In cleaning some a few days since with nitric acid, I found abundant dull silvery looking crystallizations dispersed over the surface of the prill, and the greater part of them plainly visible to the naked eye. I have since cleaned others which I shall forward to you, and each experiment has shewn the same result. Perhaps you know all this already, but still the specimens I send will not be uninteresting to you, as being deprived of their dark dull coating of manganese.

" I hope at the close of this week to send Mr. Hill off to Sabará for about 150 bars for conveyance to Rio de Janeiro."

Dated Gongo Soco, 20th—29th October, 1829.

" I last had the honor of addressing you on the 18th inst. since which I have been favored with your commands to the 19th August inclusive.

" I truly regret that the public are alarmed by demands for more men, and beg, when I close the reply to this paragraph, to submit to such of the Shareholders as are either theoretical or practical miners, a few short remarks. A reference to the plan, a measurement of the short distance between our levels, and the rapidity with which our very insufficient backs (insufficient, because the levels for want of hands cannot be carried forward to create them,) are con-

sumed, will shew that Gongo mine, without a brisk and constant extension of its works, cannot exist.

" I do assure you, that I keep well in view the immensity of the expenses here, your great responsibility to the Share-holders, and mine to you, but without bold outlay, Gongo would not pay expenses, and *with it*, will in my firm conviction become a prodigious mine. One or two years is no great time, nay, four or five I may say, to expend in getting a mine in course, even in England, where every thing is supplied to you ; but here, where we have treacherous ground, an immense quantity of timbering, an insufficient supply of plank, and but few mechanics to erect machinery, a year soon passes away without any wonderful progress being perceptible, and during all this time we are paving the way for those more extensive operations, for which I see the sheer necessity of asking for more men. I certainly do not think there is any risk of your being distressed by the works not yielding in proportion to your increased expenses, but we can never know what is in store, unless we hazard something to look for it.

" I sum up this paragraph by stating, that we can have no backs without levels, no levels without shafts to take off the stuff, and nothing under adit without sinking.

" The backs being expended, as they constantly are, we can have no more until the levels are extended. As the levels increase in number, as more shafts become requisite, and more cross-cuts are essential to connect them with the levels, we must of necessity have more men to drive and sink. As the produce increases in bulk, if not in quality, we require more strakes to wash it, more launders, more tanks, whims, rail roads, carts, cars, barrows, plank, and stamps, with their

wheels and gear. Hence more smiths and carpenters are necessary. In fine, Gongo cannot be properly worked without many hands, and constantly increasing force and works, which will, I am sure, lead to great results.

"The *rego* being almost now finished, I hope to get twenty or thirty workmen from thence, to enclose, by cutting the face of the surrounding mountains, all entrance but by one gate, to the mine surface, but I have been often disappointed in promised assistance, and am not even now sure of getting it. This would be of vast advantage to us, and might be done in two months.

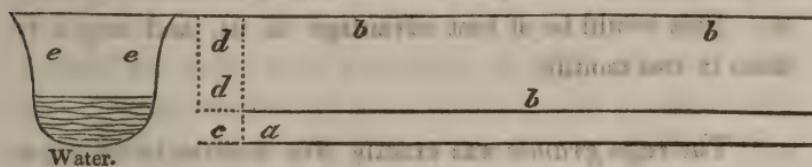
"The *rego grande* was exactly five months in coming to the mine, as I estimated. The water will be there (it only waiting the completion of a few launders across a deep gully,) in about ten days, but we must expect that in the great extent of above six miles, through various kinds of earth, amongst woods, over stones, through launders, we shall, when the tremendous torrents of rain set it, have frequent calls upon us to clear or mend its bed, until it is firm and settled, which will be long before the dry season.

"I cannot but repeat my satisfaction at hearing that you promise to send a Clergyman to Gongo.

"All our workings for some months are in *Gongo*, in the space of 200 fathoms from end to end. The backs *will* last for twenty years, I cannot *affirm* that they will yield ample produce for that period, as, to use the expression of an advertising quack, 'Nature is a mysterious treasury,' but I believe they will yield you abundantly. Your having expressed a fear about their produce stopping, and my having

said they would yield for twenty years, calls upon me for some explanation. They stopped because there were *no more backs!* backs do not exist, until levels are driven, and if all *above* a level is taken out as far north as its end, that back is exhausted, but drive the level one fathom, and you obtain as many square fathoms over it, of *backs*, as there is distance between this level and the one above it.

“ For example,



a, is the old end ; *bbb*, the space where backs once existed, and are now worked out ; *c*, the fathom driven ; and *dd*, the space of backs created above it. You may ask, why not go down at *ee*? This is not always possible, the ground may be wet, what is to drain it? Nothing but the level, for water will fill its bottom, and the ground then comes together and crushes, and when the level reaches the place at last, you have a run, the end is insecure, and the level may be lost for weeks, nay months. Pray explain, from the mine plan, to such Shareholders as require you to account for the stoppage of the old workings, that the ‘old workings’ imply places already cleared, and that they stop, because there is nothing in them, their produce having appeared at the Board in bars! I am sorry that the Shareholders expect that Gongo expenses should decrease, or at all events not increase. My letters promised a reduction, and a great reduction was made, for the mine was poor, and I wished to keep the expenses low until better promise came in sight. There are

now many reasons to be more confident about this property, and, as my situation here requires me to act upon and state my opinions, I now repeat, what I some time since conveyed to you, that by increased force and bolder outlay, appearances and experience lead me to be sanguine of great future advantage. Whoever occupies my place, must, as I do, hazard his opinion also, but neither he, nor I, can take blame to ourselves if we cannot dive into the future.

" Hitherto I may affirm, that not one prognostic (of any importance) which I have ventured about the mine, has failed. About 6000 lbs. troy have been taken out since I came ! Many of the reductions in the days of poverty were made by me before I received your orders to try and effect them, and all these things will, I hope, lead the Shareholders to console themselves, that Gongo has not yet arrived (and may not for many years arrive,) at the maximum of its produce.

" 27th Oct. I am extremely grieved to announce to you a most serious accident which took place yesterday in the shoot, by a piece of timber descending with amazing velocity, having caught George Wardle before he could escape from it, and crushed one of his legs in pieces, so that amputation was immediately necessary, and he is doing well to day. This poor man was a valuable and useful servant, having charge of the shoot, and in representing his case to the Board, I am sure that I can count on their humane feelings for a provision for the first man who has been mutilated in their service, and who has borne his misfortune with a patience and fortitude which is most admirable. Wardle had been engaged while in the 43rd regiment in most of the continental battles, at New Orleans, and afterwards at Waterloo, and

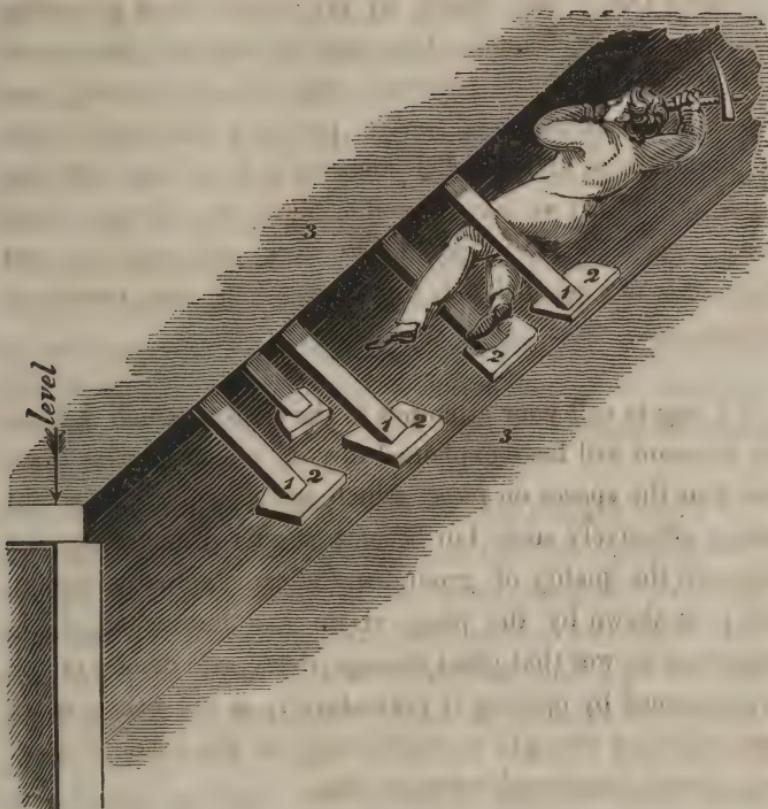
the present is the first bodily injury he has ever sustained. As he is a sober, steady, hard working man, I have ventured to assure him, that his loss of a limb shall not be the means of his being invalidated from your service, as he will be of great utility either in taking charge of stamps, attending the stakes, or assisting in surface works, for as many years as he may wish to remain. This has afforded the poor fellow much comfort, and I am sure your liberality will induce you to give him some compensation for life.

" 28th Oct. I am now able to inform you, that the 'rego grande' (water-course) is completed and paid for, (although I yet fear some kind of demand, from its being nearly a *mile* longer than was expected,) and at the close of this week a portion of its water will be in Gongo mine, where, by the rains having discontinued for some time, we are so sadly reduced, that but three stamp heads have worked for several days, and our canoas and saw mill for many hours daily ! I need not say more to give you an idea of the value of this undertaking, which I entered upon from two dry seasons experience.

" Mr. Baird (the engineer) and I, the day before yesterday walked over the whole extent of the 'rego.' It is an excellent work, and *some hundred fathoms* of launders, durably and well constructed, are put up in a manner which does infinite credit to the contractor. The water has staunched and run over above five miles, and it has only two more to pass over ; we find we can add from streamlets which descend the mountains 4. to 500 gallons to the estimate given you of the water from the *corregos* (small streams) at the head of the water-course.

"29th Oct. Mr. Baird, by my orders, went yesterday accompanied by Captain Jennings to examine the woods over the mouth of the proposed deep adit, and reports that 'there is a sufficiency of timber, precisely the size for such an undertaking, and which I conceive to be of the very best quality.' Until we have enough plank for *Gongo* mine, and to *spare*, for the proposed new work, and until we can spare men to begin driving, this undertaking must remain at a stand still.

"I beg to call your attention to the backs, which I hope my diagram will have explained to you, and to impress upon you that the spaces on *paper* which appear as backs are not always effectively such, but become so after drainage, &c. for although the quality of ground so indicated actually stands, and is as shewn by the plan, virgin and untouched, it is sometimes so wet that great damage, delay, and danger might be occasioned by opening it prematurely, as the backs must have sufficient strength to stand firmly on this kind of support closely introduced between them.



"(1) being a strong prop of timber, and (2) being a piece of plank below, another like it being above. The miner goes along sideways, introducing these supports as he advances. (3) may represent the section of the solid ground on each side the branch.

"Pray observe, that the middle adit *only* cuts the lode at Lyon's shaft, as I have before indicated it would do, in the plans first sent, and it is only *west* of it that you are as yet to suppose backs. These are far too wet to work.

"I have in my last letter informed you. that there is a fine branch of gold in the end, but we cannot see it. The stakes give us proof of its existence, and in the backs above it we

shall no doubt have a fine vein as soon as they are dry enough to open. The backs on the 14 fathom level immediately east and west of Lyon's shaft, shew little or no gold at present ; this is what we call the 'eastern ground.' The small backs shewn on the 14 fathom *end west* are very wet, and the run marked in former places, and much commented upon, near Shore's shaft, still follows us, but there is certainly gold at hand there. The trifling portion on the 7 fathom level west is wet and difficult at present, (vide my two last letters) ; to conclude this long chapter on backs, we have abundant ground to *make* them, few made.

" When I asked for so many more men it was to carry forward every end in the mine, of which there are *ten*--and thus give a constant supply of backs in ten different places. Let us say that taking good and bad ground together we only average four fathoms a month on each end, and take the average between the levels at five fathoms, this will give 20 fathoms backs on each end, (the easy having more, the wet and difficult less, and so keeping the average) or 200 square fathoms of backs to be worked away monthly.

" To supply this quantity we must at least for ends alone have on Bennett's level, middle level, and shallow adit east, two men each—shallow adit west four—seven fathom level east two—seven fathom west six—14 fathom west eight—14 fathom east six—middle adit west eight—middle adit east six—making a total of 46 men driving on the branch alone, if the whole mine is to be worked.

" After this comes the old deep adit, eight men driving,

(I say nothing of the proposed new one), eight men sinking Lyon's shaft—eight men on Crickett's, and I leave out every other shaft in order to be far beneath the calculation instead of above it. Neither do I speak of the Cumba, which now requires Englishmen.

" Thus $46+24=70$ men are working as described. Then we have usually several sick. I have one as a car driver—four attending stamps—(two by night, and two by day)—one at the stakes—(six more, for I will not count the sick) =76: supposing all the ends at work to create backs, we should then have but seven men to take out these backs, for our total number of Cornish men at present here is 83, and the 10 lads are employed on the surface, or clearing the levels, and in many useful works. This will give you an idea of what Gongo is, and what it requires. It was bought as a jacotinga mine with all its disadvantages on its head, such as being wet, treacherous, and requiring a wonderful quantity of timber and labor, machinery, &c. as it deepened, and the Shareholders instead of imagining that as these difficulties increase, the mine will be cheaper, must make up their minds to find it become more expensive annually, but at the same time their profits will be greater. It is not in a week or a month after a new batch of men arrive, that the produce is to change; they may have works to do of no immediate profit, and it is as likely as not that a wonderful bunch may be found before they reach Gongo, and the mine become comparatively poor again for a time after they arrive. Pray beg the Shareholders to bear in mind the difference of expence between opening such ground as ours, and working in soft rock, or solid earth, where there are no crushes, and where timbering is never requisite.

"Mr. Hill left Sabará on the 24th with 158 bars, well guarded, having taken with him 230 lbs. 10oz. 18dwts. 14grs. of dust."

Dated Imperial City of Ouro Preto, 10th Nov. 1829.

"I last had the honor of addressing you on the 20th and 29th ultimo, since which none of your orders have reached me, and nothing of any importance, as affects the mine, has occurred at Gongo; but I have the painful duty of informing you of the death of George Wardle, who was doing extremely well until the 7th day after the operation, when he was seized with lock jaw, which notwithstanding every care on the part of our medical gentlemen, proved fatal to him on the 4th instant; I refer you for particulars to the P.S. of Mr. Macfarlane's sick report. Wardle was buried with every attention, and the attendance of all your servants at Gongo, amongst whom his loss has created a great sensation. He has left a destitute female orphan, who lost her mother soon after her birth, and I am sure the paternal feelings of the Board will sympathise too strongly in the poor child's fate, to render it necessary for me to point her out as an object of charity to them.

"The mine is going on very well, the Captains' monthly report will shew that their ideas and mine, respecting the promise of the middle adit, are much the same.

"Mr. Tom writes me, that the distressing want of water which prevented our working more than 3 stamp heads, now exists no longer, 9 were going when his letter left. The water already falls from the *rego grande* into the buckets

of the large wheel, and the major part of that first lost by suction in the long dry water-course, must ere now be pouring through our launders; and now I may venture to tell you (except by some temporary accident to the water-course) you have heard for the last time of insufficiency of water in Gongo !

" Mr. Mason left Gongo on the 6th for Sabará, carrying with him 125lbs. 2oz. 17dwts. 12grs. for the Mint.

" The lower stakes (without speaking of the other stakes and stamps which, now the *rego grande* is in, are going to work) average above one pound of gold per diem, and would give more if supplied sufficiently with stuff: we have but Bailey, who can bring the heavy lodes of jacotinga down a steep hill to them, only one cart, and very inefficient harness; we require immediately 3 more carts to be at work, and how we are to supply the wants of other places I know not, but you may depend on our doing our best."

Dated Gongo Soco, 18th Nov. 1829.

" I last had the honor of addressing you from the Imperial City of Ouro Preto, from whence I arrived at Gongo on the 14th ; every thing has gone on quietly and steadily during my absence, and I have nothing of any moment to communicate.

" The rains have again set in, and we have now before us the usual prospect of four months wet season. The mine, as the gold report will shew you, keeps up its produce, although we have no very important branch in sight, our present gold comes principally from the 7 fathom backs *west*, but we

have also had some good assistance from the eastern ground. I had a four hours' survey of every open back, winze and level, the day before yesterday, and have the satisfaction of reporting, that I never saw the lode in better working order than now in the lower levels. Our people, who now live six eight and even ten in small huts, will soon be well lodged, as four good houses for six men each are now built, and nearly dry and ready. There is, however, a good humoured determination on the part of the miners, not to be discontented with their crowded accommodations.

"I yesterday dispatched Mr. Randall to Sabará with 105lbs. 10oz. 8dwts. of gold dust, and on his return shall learn when sufficient bars for a remittance will be ready."

Dated Gongo Soco, 25th Nov. 1829.

"I last had the honor of addressing you under date of the 18th instant, since which I have received duplicate of your favor of the 27th August original, and duplicate of the 2nd September, original of 17th ditto, with duplicate of the Secretary's of the 25th August, together with the sundry invoices and papers, to which I reply in order.

"I beg to refer you to the September letters and gold reports, and to inform you also that Crickett's shaft has been sunk from the level of the old adit seven fathoms six inches down to a level with the 14 in 46 days, and a cross-cut of 14½ fathoms has been driven from and has cut the lode in 20 working-days! the shaft is 10 feet long by 4½ wide. You now, by sinking, have *two* more ends ready to drive on in the 14 fathom level, and will come under the place whence we had the 140lb. day, *six* months sooner than if we had *not* sunk.

"The mine continues to look well, although extremely wet, but I am causing the old *talho aberto* to be entirely filled up, so that no dell or pool can possibly allow of the surface water coming down. At present both east and west we know that we could get out more gold were the ground a little more stiff, but as it is, we are obliged to take out the branch with all the slowness and caution so requisite to be observed in wet ends where runs are constantly occurring.

"28th Nov. On Mr. Randall's return from Sabará on the 20th, he informed me that 73 bars were ready, and before I could get the mules in from pasture, prepare the troop, and send Mr. Mason off on the 24th with 114 lb. 6oz. 2dwts. 12grs of dust, 95 bars were ready, and with these he left Sabará on the 26th instant.

"Mr. Baird's new shoot, a very excellent and advantageous work, will send down its first timber on the 1st December, and I hope on that day to see three more heads at work, with the little 12 foot wheel, which was set going, so as to lose no time with half its complement.

"Every exertion is making to get the upright saws to work before the next post day; their motion is beautiful, and I anticipate by their means an immense, perhaps after a few months, total reduction in expenses for plank!"

Dated Gongo Soco, 8th December, 1829.

"I last had the honor of addressing you under date of the 25th and 28th ultimo, since which nothing of any importance as relates to the mine has occurred. On the 3rd

Mr. Bowen left for Sabará with 110 lbs. 8oz. of gold dust, but as there are several holidays at present, I know not when the bars of the present quantity will be ready.

"The mine is in excellent produce, and looking well, both east and west, near Lyon's shaft; on the 14 fathom level we have taken out some fine work; and two flat prills, each exceeding nine ounces, and remarkable for shape and colour, are put aside to be forwarded to you, as is also the largest solid prill we have ever had, from the bottom of the old shallow adit *west*, our September ground, (under which, by having sunk to the 14, and communicated by a cross-cut, I am now arranging to carry the 14 fathom level,) weighing 3 lbs. 1oz. ! It weighed 4 lbs. 11oz. but in cleaning it, some large lumps fell off—at all events it is the most splendid specimen Gongo has yielded since the mine was yours, and being from ground 'of but little promise,' it is the more remarkable.

"I have ordered that three more men are put to work on the place were Jewell was, and which, from being wet, we stopped for a time; it is now drained, and I wish to see what it will give you.

"The upright saws are at work to day, and admirably put out of hand, principally by Richard Askie. We have yet to lay a rail road of about 150 fathoms for the timber, and then our sawing will proceed at such a rate as, even before I go, to give an idea of when you will be independent, or very nearly so, of the natives for plank.

"We are now expecting the men who came by the *London*, and having no accommodation for them, (as our cottages take

a tremendous time in their erection, owing to slow native labour, holidays, &c.) they will all be lodged in the portion of my house formerly occupied by Col. Gama.

“ As we have been much occupied of late, the Captains have not yet made out the monthly report, with a *prospective* plan of future operations, and Captain Trebilcock begs that it may stand over until next post, when I hope to have a new general plan of the mine and surface to forward to you, a work in which I am at present occupied, and which I trust will give you satisfaction.

“ We have waited a great length of time for the iron requisite for the tram road in the deep adit, but are yet to suffer delay, as our iron merchant has some large orders to execute.

“ I am now having the ground at the surface measured, in order to see if a shaft, proposed by Captain Trebilcock to be sunk on the end, will be advantageous; the other Captains have advanced some reasons that this would lead to more trouble and expense in various ways, and I shall endeavour to arrange the plan as to me seems most advantageous.

“ Mr. Baird’s report will give you a satisfactory account of his department.”

Dated Gongo Soco, 18th December, 1829.

“ I last had the honor of addressing you on the 8th inst. I have not received your commands since those replied to November 25th and 28th, but expect that letters will reach me the day after to-morrow.

"Mr. Hill arrived here on the 12th instant with his party. Mr. Peters carried with him on the 14th 105 lbs. 2oz. 8dwts. of dust to Sabará, and on his return informed me that the whole of the parcels in the Mint, amounting to 69 bars, would probably be ready by the 22nd. I therefore purpose sending off Mr. Hill on the 21st with the remittance for Rio, as the holidays are coming on, and but little is done at the Mint between Christmas and Twelfth Day. 'The parcel is certainly small, but your wish that large remittances should not be trusted on the road, leads me to send it without delay. I am all anxiety to put the idle men under-ground in the backs, which are daily making.

"I trust that the Board and Mr. Williams will have fully comprehended my recent description of this part of a mine. We have them of great promise both east and west."

Dated Gongo Soco, 22nd December, 1829.

"The last post brought me your commands up to the 21st October.

"On the 24th Mr. Hill left Sabará with 69 bars of gold for Rio. The mine is at present rather poor from the quantity of work which it has been requisite to do in the old level, where timber has given way, and innumerable small runs taken place: nothing has occurred to startle or put us in any danger, timely remedies being always employed, but the usual accidents, incidental to the rainy season, have somewhat impeded us.

"You will note, that we had no produce on Saturday, the

day following Christmas. This was unavoidable, as you are aware that at the close of a week, or previous to a holiday, it is requisite to stop the ends of the levels, back them up with planks, &c. to avoid runs or crushes while the mine is unpeopled. This was done on Thursday, *when the men worked four hours extra unpaid*, and taking this into account, I did not allow the ends to be opened on Saturday, as it would have taken three hours at least to do so, and get things in course, and allowing three hours again to stop them, but two hours profitable labour would have been obtained, as on Saturday all leave the mine at two P.M. I have not seen a Christmas so quietly and respectably kept since I have been at Gongo. I am not aware of a fight, quarrel, or complaint amongst the people, and the labourers have also behaved well; when our great force is considered, all parties deserve praise for their good conduct.

“ Mr. Baird having tendered his resignation, I have given an unreserved assent, and from the 21st instant he is out of your service.”

Dated Gongo Soco, 6th January, 1830.

(Extracts from this letter will be found in the Directors' Report, page 7 to page 11.)

Dated Gongo Soco, 13th January, 1830.

“ I had the honor of addressing you under date of the 6th instant. Since which your orders of the 4th, 13th, 14th, 18th, and 20th November, with their enclosures, have duly

reached me. Duplicates of all the enclosures in my letter of the 8th August, as ordered in yours of the 4th November, now go enclosed.

"I shall in all things endeavour to comply with your wishes in respect to Col. Skerrett, a copy of the letter to be delivered to me by that gentleman has come to hand. I am preparing with the most minute attention every inventory which will be of use to him. The money in hand (March 18th) shall be duly counted in his presence, and I will take receipts in triplicate for every thing.

"By the next remittance I shall have the honor of forwarding the largest prill yet taken out, weighing 3 lbs. 4oz. troy, from the ground on the back of the middle adit, near Lyon's shaft. It occurred in a bunch, which suddenly ceased again.

"We have begun opening ground for the new deep adit : I suspect that much timbering will be required for it, as for a considerable distance the cross-cut will run under what I suspect to be loose soil ; a part will be open, cutting until we come to the rise and begin driving.

"I am sorry to announce, as you will see more clearly by the enclosed letter, that it has become requisite to invalid Mr. Tom. Mr. Macfarlane fully explains the nature of his disease, of which I also, many months ago, advised the Chairman. I purpose sending Mr. Tom down at the close of the month with the remittance of gold, and a box of an entire collection of the minerals of Gongo for the Board.

"I enclose a general surface plan of the mine, extremely

well executed by Mr. Hodson, on whom much additional duty now falls, and who is very valuable to your Association. His salary is very small.

"With this go reduced plans by myself of the surface, section, and ground plan of the mine--the measurements by Captains Jennings, Prideaux, and Hambly.

"On the 14th Mr. Mason carried to the Mint at Sabará 93 lbs. 6oz. of gold dust."

Dated Gongo Soco, 21st January, 1830.

"Having yesterday received a letter from Col. Skerrett, and learning for the first time the number and circumstances of his family, I cannot but suppose that I act as you would wish me, by sending down Mr. Macfarlane to attend them from Rio: and in order to ease the natural anxiety of the Colonel respecting his lady, I dispatched an express to inform him of my intention, and prevent his engaging, as he intended, at his own expense, a medical gentleman to accompany him up the country. I am desirous that he should, as soon as he sees Mrs. Skerrett and family fairly on their way, leave them to the attentions of Mr. Macfarlane, and proceed as rapidly as possible to Gongo, as but little time will remain for me to deliver up my charge to him; various reasons having caused me to decide on leaving Gongo on the 19th of March.

"I have the pleasure to inform you, that after having for some few days expected a bunch, we have cut it, and to day's produce is above 77 lbs. This news will pay the expense of the courier."

Dated Gongo Soco, 28th January, 1830.

" By an express dispatched by me on the 22nd I last had the honor of addressing you. The duplicate of my short note goes enclosed.

" Mr. Macfarlane left this on the 25th, and on the 30th Messrs. Tom and Peters will leave this for Sabará with what dust is now in the chest.

" On the 1st I hope to be able to send them off for Rio with such bars as shall be ready.

" Mr. Tom's invaliding certificate will be dated on the 30th, but as he goes down as a guard to the gold, I have no doubt that the Board will approve of his being paid until the bars are placed in the Agent's hands. Mr. Macfarlane's letter respecting Mr. Tom has already been forwarded to you, and it is now my duty to represent to you, that Mr. Tom's services at Gongo have been most valuable and important to you, and that even at times when by medical advice he should have been in his bed, he has persisted in not sparing himself and attending to his duties. The state of the village, and the comfortable lodgement of your people are, in a great measure, owing to his indefatigable exertions. He has constantly had charge of the gold chest, and receipt of the produce, and in more ways than it is here necessary to enumerate, (as his name has so often appeared in my official communications,) has rendered me great assistance. As this gentleman was engaged at my recommendation, I refrain from saying more in his praise, lest I should be accused of partiality or favoritism; but conclude by assuring you that he leaves Gongo, accompanied by the regrets of all those who remain here.

"The mine is looking very well—the gold at present comes from near the foot of that winze in the mine plan which comes down from the 7 to the 14, next west of the 14 fathom cross-cut. The branch has here a very peculiar appearance, the gold lying in it in fine dust, but few prills occurring, a sandy yellow marl, decomposed yellow talc, and reddish brown manganese, forming to the breadth of a span at some places, and then again diminishing to an inch in thickness.

"The whole of this is rich in gold, and I saw a hatful broken under-ground a few days since, which yielded 27lb. 7oz. 14dwts. of dust! I purpose having this most wonderful produce smelted into a single bar, its proportion of duty being taken from the other produce, and sent to England. I conceive that it will excite great astonishment when a common miner's hat is shewn as the size of the produce from which it was taken."

Dated Gongo Soco, 6th February, 1830.

"I last had the honor of addressing you under date of the 28th January, but I am sorry to say that the courier left Ouro Preto without my letters, owing to its having escaped my memory that on this only instance of the year, the post started one day earlier, as the 31st January is taken to make up for the short month of February, and on the morning of that day instead of the evening, as is the case throughout the other fixed periods of the year, the letter bags were sent away from the Imperial Post Office.

"On the 4th Messrs. Peters and Tom left Sabará with 68 bars of gold for delivery at Rio, having taken to the Mint

161 lb. 5oz. 19dwts. and I send at the same time the large prill weighing 3 lbs. 4oz. 10dwts. as well as a chest of Gongo specimens, shewing the minerals as yet found here.

"The steam engine arrived here in safety on the 4th. The mine is still in tolerable produce, and we have cut gold in the end of the seven fathom level west, which looks well. The large stamps are working but nine heads, for there is a greater demand on the wheel as the pumps go down. The stuff for crushing has run poor on one of our largest heaps : Lyon's wheel is laid down, and in good progress.

"I enclose the mine report, and prospective sketch of what will be attended to during this month.* You will observe a most important alteration in the mode of driving the levels north of the branch, so as to leave it standing, and proceed with a vast deal more expedition. Had this been done sooner, an immense sum might have been saved. You are indebted for this most valuable suggestion to the sound judgment of Captain Jennings alone."

Dated Gongo Soco, 17th February, 1830.

"I last had the honor of addressing you under date of the 6th instant, since which I have nothing of any importance relative to the mine to communicate to you. It is looking poor at present, as no bunches are in sight, but produce is coming from both east and west, the seven fathom end west still shewing gold. I expect that we shall improve in a few days, perhaps an hour may give us better produce.

"I have been treating with my neighbour Padre Penna,

* See page 86.

respecting a fine pasture estate about three miles from Gongo mine, and adjoining the south eastern limits of your property, it abounds in pasture and forest ground, and has several auriferous *formações*. Its extent may be about two leagues, equal to eight miles in length, and I believe it will not be sold dear. Such a property is most essential for your working cattle, and I shall call Colonel Skerrett's attention to the estate, which is named the *Corrego da Onça*, and is certainly the best situation of which I know for your animals. Since receiving your permission to purchase pasture land, I have made every enquiry relative to properties at a convenient distance from Gongo, and at length have the satisfaction of mentioning this to you.

“The horse engine will be at work on the Cumba mine tomorrow, when we shall sink for a fork, and then commence driving the cross-cut north to cut the branch.

“We purpose putting the steam engine into the woods, in order to increase our supply of plank, which is yet far below our wants. The frame-work will take a few weeks to erect, occupied as we are with Lyon's wheel and other important works, but it will be roughly constructed, and so arranged as to be moveable at pleasure. In the new deep adit we are beginning to drive, and I have arranged that the supply of timber comes from a small shoot at the back of the village.”

MINING CAPTAINS REPORTS.

ADDRESSED TO THE CHIEF COMMISSIONER.

Dated Gongo Soco, 1st August, 1829.

“ SIR,

“ We beg leave to hand you a statement of our mining operations since the 1st ultimo.

“ In the middle adit we have driven eight fathoms five inches, which if driven in a straight course would have cut the vein, but having had very quick ground in one side of the end, we were obliged to drive in an oblique direction; we expect, however, to cut it in a few days, and we are in hopes of getting gold soon after we have turned to drive on the vein.²³⁰⁰

“ In the fourteen fathom level we have driven four fathoms, one foot, six inches, and having come to the vein sooner than was expected, we opened the old end which was considerably drained, and we are happy to state, have succeeded in getting through the old run; the end is now pretty firm, having gold in sight.

“ In the seven fathom level west of Esperança shaft, we have driven nine fathoms, one foot, six inches, nearly the whole of which was poor: we have also sunk a winze from the shallow adit to the seven fathom level.

“ In the seven fathom level, east of Lyon’s shaft, we have driven three fathoms, six inches, part of which produced gold, but the end is poor at present.

" In Tom's shaft we have sunk two fathoms, and have driven fourteen fathoms, four feet, in an adit which will come twelve fathoms perpendicular below the top of the shaft : we have about sixty to seventy fathoms more to drive, which will be done at a small expense as it is quite dry. This adit will cut off twelve fathoms in drawing water, and will of course enable us to sink twelve fathoms deeper with the same power of machinery if required.

" In Hollingsworth's shaft we have sunk four fathoms, two feet, and have about two fathoms more to sink it to the middle level. We have driven a cross-cut five fathoms, four feet, five inches, from the middle level, towards Hollingsworth's shaft, the whole of it in jacotinga, but have not yet come to it in the shaft.

" In the shallow adit, west of Williams's shaft, we have driven three fathoms, nine inches, which sometimes shewed gold, but is now poor.

" In the back of the shallow adit, east of Williams's shaft, we have stoped two fathoms, which was poor.

" In the back of fourteen fathom level, west of Lyon's shaft, we have stoped eleven fathoms, one foot, which produced good bunches of gold, and some still appears in sight.

" In the back of seven fathom level, east of Lyon's shaft, we have stoped four fathoms, which produced some bunches of gold, but the stopes are poor at present.

" In the back of the seven fathom level, between Shore's

and Esperança shafts, we have stoped twenty-four fathoms, four feet, which produced good bunches of gold, and some still appears in the stopes.

"We have the honor, &c."

(Signed) "JOHN TREBILCOCK.

"JOHN HAMBLY."

Dated Gongo Soco, 1st September, 1829.

"Sir,

"Since we last had the honor of laying our report before you, we have driven in the middle adit two fathoms, three feet, have cut the vein, and have sunk a winze from fourteen fathom level to the above mentioned adit. Of the state of the vein we can say nothing at present, as we have seen but a very small part of it, the ground being very soft, and large streams of water bursting from it, we were obliged to shut it up until we drive a cross-cut under Lyon's shaft: we have driven in the said cross-cut two fathoms, four feet, ten inches, and expect to complete it in a few days, when we intend to re-open the end, and commence driving on the vein.

"In Lyon's shaft we have sunk two fathoms, five feet, six inches, and in the fourteen fathom level east of the same shaft, we have driven five fathoms, which sometimes gave good samples of gold, and the vein is still kindly but not rich: we have sunk a winze from seven fathom level to this end, a part of which produced gold.

"In the seven fathom level, east of Lyon's shaft, we have driven three fathoms, and have sunk a winze from the shallow adit to it, in which we have had a good branch of gold, and still continues in both ends of the winze.

“ In the fourteen fathom level west we have driven two fathoms, three feet, but it was so wet, and the ground so soft, that we cannot positively say whether it was poor or rich, yet we believe that the vein contained gold.

“ In Shore’s shaft we have sunk two fathoms, five feet, six inches, and expect in a few days to hole to the fourteen fathom level, which is now shut up, but when the shaft is properly secured to that level, we shall begin driving westward again.

“ In the seven fathom level, west of Esperança shaft, we have driven eight fathoms, two feet, which sometimes shewed gold, but it is poor ; we have sunk a winze from the shallow adit to this level, which was also poor.

“ We have sunk a shaft between Esperança and Da Gama’s shafts, it is holed to the shallow adit, and as Walker’s old shaft is too far north for our present workings, it is superseded by the new one, and we have consequently named it Walker’s shaft.

“ Hollingsworth shaft is holed to the middle level.

“ In Tom’s shaft we have sunk two fathoms, four feet, and in the adit which is designed to come to the same shaft we have driven eighteen fathoms, two feet, six inches, and have sunk a shaft on it for air, and for taking off the stuff from the end.

“ In the back of the seven fathom level, west of Esperança shaft, we have stoped five fathoms, which sometimes shewed gold, but the stopes are poor at present.

" In the back of the seven fathom level, between Esperança and Shore's shafts, we have stoped fifteen fathoms, which gave some good bunches of gold, and a little still remains in sight.

" In the back of the seven fathom level, east of Lyon's shaft, we have stoped five fathoms, which produced some bunches of gold, and a little still remains in the stopes.

" In the back of the fourteen fathom level, west of Lyon's shaft, we have stoped twelve fathoms, which produced some fine strong bunches of gold, and some still remains in sight.

" We have the honor, &c. &c.

(Signed) " JOHN TREBILCOCK.

" S. PRIDEAUX.

" WM. JENNINGS.

" JOHN HAMBLY."

Dated Gongo Soco, 1st October, 1829.

" Sir,

" We have the honor to lay before you our report of the last month, containing a statement of the work done since 1st ultimo.

" In middle adit, driving west, we have driven two fathoms, five feet, six inches, and the vein when washed, will shew gold. In Lyon's shaft we have sunk three fathoms, one foot, three inches, have made communication with the back of the middle adit, but in a few days expect to make it complete with the bottom of the adit itself.

" In fourteen fathom level, east of Lyon's shaft, we have

driven two fathoms, one foot, six inches, which has been poor. Shore's shaft we have sunk upon fourteen fathom level, have cut the branch, and driven one fathom, four feet, three inches, in the said level, looking kindly, the vein when washed will shew gold. We have holed Walker's shaft upon seven fathom level ; we have sunk a winze from shallow adit, west of the old engine shaft, upon seven fathom level, and find that the vein has split in the bottom of the said adit ; one part of which keeping its regular course, viz. the one on which we have driven the level, underlaying six feet in the fathom, but always when washed have shewn good samples of gold ; the north part of the vein we have sunk the winze upon, and not underlaying more than eighteen inches in the fathom, and from which we have been and now are raising our immediate produce.

" We have driven a cross-cut six fathom three feet from Walker's shaft, have cut the vein coming down from the shallow adit, and have driven the seven fathom level on the vein two fathoms, which has produced good samples of gold, but the end being wet, and ground soft, we cannot discern much gold in course of breaking.

" In the back of the seven fathom level, east of Lyon's shaft, we have stoped nine fathom four feet, which have produced some small bunches of gold, but the stopes at present are poor.

" In the back of the fourteen fathom level, west of Lyon's shaft, we have stoped five fathoms four feet, which has produced some good bunches of gold, and some still remains in the stopes.

" In the bottom of the shallow adit west we have stoped ten fathoms four feet, which has produced immense bunches of gold, and in each stope we have still a fine branch of gold in sight.

" In the Cumba adit we have driven six fathoms, four feet, six inches. In consequence of the great consumption of timber in the other parts of the mine, we have not been able to get timber in order for Tom's shaft, consequently the blacks have not been enabled to sink, but have been employed upon other work.

" The engine, &c. being in readiness, we commenced sinking the new engine shaft, now named Crickett's shaft, have sunk two fathoms, two feet, seven inches, and have the pleasure of informing you, that we can draw the water at half strokes, and generally work nine heads of the stamps.

" We have the honor, &c.

(Signed) " JOHN TREBILCOCK,
" S. PRIDEAUX,
" J. HAMBLY.
" WM. JENNINGS."

Dated Gongo Soco, 1st November, 1829.

" Sir, ~~desiring your favor before his return to the Company's office~~
" Since we last had the honor of laying our report before you, bearing date the 1st ultimo, we have driven in the seven fathom level west five fathoms four feet, which sometimes shewed a little gold, but the end at present is poor.

" We have sunk a winze from the shallow adit to this level, the upper part of which contained a good branch of gold.

" In Crickett's shaft we have sunk four fathoms, four feet, three inches, and are now at the same level with the fourteen ; we shall immediately commence driving a cross-cut to the vein.

" In fourteen fathom level west we have driven three fathoms, one foot, nine inches, which showed gold, but the vein is now poor : on the same level we have sunk a winze from seven, which produced some small bunches of gold.

" In a winze from seven fathom level, east of Lyon's shaft, we have sunk four fathoms three feet, which produced a pretty good branch of gold, and it still continues in both ends of the winze.

" In the Cumba adit we have driven one fathom two feet, which have been driven on a rock, which we believe has been deposited there by ancient floods : we expect shortly to get through it, and shall then be able to drive much faster.

" In middle adit west, we have driven three fathoms, one foot, six inches, in which we have had and still have a good branch of gold, but in consequence of the ground being wet and soft, it is with great difficulty that we save the vein, the stuff from this end when put to the stakes, yields fine prills, and notwithstanding the very soft and difficult state of the ground, yet we get good hats of stuff, and in one of the hats we found a fine prill weighing upwards of four and a half ounces, which is a strong indication of something good stand-

ing before us, and we have good reason to believe from finding the gold so strong in the end, that when the backs above it are well drained, we shall find them very productive.

" In a winze from fourteen, to come down upon the last mentioned end, we have sunk five fathoms, one foot, two inches, which produced several small bunches of gold.

" Lyon's shaft is now completed to the middle adit level.

" When the middle adit was brought home, it was not driven at right angles with the vein, but turned a little westward in order to come sooner under the expected rich ground, in consequence of which there now stands a piece of ground about three or four fathoms between the adit and Lyon's shaft. We have driven a cross-cut about two fathoms from the said shaft, and have cut a pretty good vein of gold, so that we have now in the middle adit (the deepest level on the lode,) a branch of gold both east and west.

" In the back of the seven fathom level, east of Lyon's shaft, we have stoped three fathoms, which produced a little gold, and a little still remains in sight.

" In the bottom of the said level we have stoped five fathoms three feet, which was poor.

" In the back of the fourteen fathom level, west of Lyon's shaft, we have stoped five fathoms four feet, which produced some gold, but the stopes there are now poor.

" In the back of seven fathom level, and bottom of shallow adit, east and west of Walker's shaft, we have stoped seven-

teen fathoms two feet, which have produced some good bunches of gold, and some still remains in sight.

"We have the honor, &c.

(Signed) "JOHN TREBILCOCK,
"S. PRIDEAUX,
"W. JENNINGS,
"JNO. HAMBLY."

Dated Gongo Soco, 1st December, 1829.

"SIR,

"We beg leave to lay before you our report of the work done in this mine since the 1st ultimo.

"In the seven fathom level, west of Walker's shaft, we have driven three fathoms, four feet, and in a winze from shallow adit to come down upon the end we have sunk three fathoms, the winze gave a sample of gold, but the end was poor. We have driven a cross-cut from Crickett's shaft at the fourteen fathom level, fourteen fathoms, one foot, six inches, to the vein, and have sunk Esperança shaft to the same level, immediately after we have finished cutting a plat we shall go on driving westward on the vein which is poor at present.

"We have sunk a winze upon the course of the vein from seven to the last mentioned level, which gave a sample of gold, but cannot see gold in the vein.

"In the fourteen fathom west of Shore's shaft, we have driven four fathoms, four feet, and have sunk a winze from

seven fathom level to it; the winze was poor, but the end produced a tolerable bunch of gold.

"We have about seven fathoms to drive to make a communication with the cross-cut from Crickett's shaft, which we expect will be done this month.

"The winze mentioned in our last report is holed to the middle adit west, and in the said adit we have two fathoms, one foot, it produced a fine strong branch of gold which still continues in sight: a small run from the back of this end rendered it very difficult to be driven during some part of the month, but the ground at present has a much firmer appearance, and we have reason to believe that we shall go on much faster this month.

"We have driven through the piece of ground mentioned in our last report, which stood between Lyon's shaft and where the middle adit came to the vein, it produced a fine branch of gold which still continues to go eastward, but it being so near Lyon's shaft, and the ground very soft, we have deemed it expedient for the safety of the shaft to stop up the vein, and drive a circular level which is intended to cut the vein a little east of the shaft—after this level is driven, and the ground drained, we shall by great care and well timbering the ground, be enabled to take out the gold which is now in sight immediately behind Lyon's shaft.

"In the seven fathom level, east of Lyon's shaft, we have driven two fathoms, two feet, which was poor, and in the shallow adit east we have driven one fathom, three feet, which was also poor.

"In Tom's shaft we have sunk one fathom six inches, and in the adit towards the shaft we have driven two fathoms, four feet, which has brought us through the rock.

"In the back of the seven fathom level, and bottom of shallow adit, east and west of Walker's shaft, we have stoped twenty-seven fathoms, which have produced some fine bunches of gold, and some still remain in sight.

"In the bottom of the seven fathom level, west of Shore's shaft, we have stoped six fathoms, which produced a little gold, but it is poor at present.

"In back and bottom of seven fathom level, east of Lyon's shaft, we stoped eleven fathoms, three feet, which have produced some good bunches of gold, and some still remain in sight.

"In the back of the fourteen fathom level, near to the cross-cut from Lyon's shaft, we have stoped three fathoms, three feet, which also produced a good bunch of gold.

"We remain, &c.

(Signed)

"JOHN TREBILCOCK.

"W. JENNINGS.

"JOHN HAMBLY.

"S. PRIDEAUX."

Dated Gongo Soco, 1st January, 1830.

"Sir,

"We beg to lay before you our report of the work done in this mine since 1st ultimo.

"In a winze below the middle level, west of Williams's shaft, we have sunk three fathoms, four feet, but it was poor.

"In seven fathom level, west of Walker's shaft, we have driven two fathoms, five feet, six inches, which sometimes gave small samples of gold, but is at present poor. The winze mentioned in our last report is holed to the last mentioned level, and we have sunk three fathoms, five feet, in another winze still farther west, but the vein is poor.

"We have cut a plat at Esperança shaft, (fourteen fathom level) and have driven from it five fathoms, four feet, have driven through the vein, and have sunk a winze from the seven fathom level, which gave samples of gold, but the vein at present is poor.

"In fourteen fathom level, west of Shore's shaft, we have driven five fathoms, one foot, six inches, which gave good samples of gold, and in a few days we expect to hole it to the cross-cut from Crickett's shaft—the water will then pass through it from the said shaft, and until the communication is made, we shall go on making preparations for sinking Crickett's shaft to the middle adit.

"In the middle adit west, we have driven four fathoms one foot, the former part of which produced a good branch of gold, but the vein and the ground near it being very soft and wet, we have been obliged to drive the end without carrying much of the vein with us, and consequently do not know whether it was poor or rich, but we have now begun to sink a winze from fourteen fathom level, by which we shall be able to ascertain the state of the vein much better than we could possibly do it by driving in a wet end.

" In the fourteen fathom level, east of Lyon's shaft, we have driven six fathoms, which produced a small branch of gold, but at present the end is poor.

" In the shallow adit east, we have driven three fathoms, five feet, six inches, which was poor. In consequence of a crush in the former part of the Cumba adit, we have not been able to drive it for the month, the men having been employed in securing the ground: the water being swift in Tom's shaft, we have not been able to sink it, but have set on the men to drive from the end of the shaft to meet those who are driving the adit, which will hasten the communication, and as it will cut off twelve fathoms of drawing water, it will of course enable us to sink the shaft more speedily.

" In back of seven fathom level, and bottom of shallow adit, east and west of Walker's shaft, we have stoped thirteen fathoms, five feet, which produced some good bunches of gold, but the stopes are not rich at present.

" In back of seven fathom level, and bottom of shallow adit, east of Lyon's shaft, we have stoped fifteen fathoms, which produced some tolerable bunches of gold; the stopes are not rich at present, but a little still remains in sight.

" In bottom of seven fathom level, east of Lyon's shaft, we have stoped three fathoms, which produced some small bunches of gold, and some still appear in the stopes.

" In back of the middle adit, and bottom of fourteen fathom, we have stoped ten fathoms, which produced some fine bunches of gold, and some still remain in sight.

" We stated in our last report that the vein in the middle adit east being so near Lyon's shaft, we thought it necessary for the safety of the shaft to drive a circular level behind it. We have driven the level, five fathoms and are now very near the vein, if we had it not already in the end, but in order to prove it, we purpose sinking a winze to it on the vein from the fourteen fathom level

" Our levels generally throughout the mine are at present rather poor, but from the sudden and almost unexpected changes which we have so often experienced since we have been here, we are led to hope that this poverty will be of a very short duration, as it is not improbable that we may even in one day cut a good branch of gold in every end we have driving on the vein, therefore we are in no way alarmed at a few days' poverty in the ends whilst the backs continue to yield.

" We have the honor, &c. &c.

(Signed) " JOHN TREBILCOCK.
" J. HAMBLY.
" S. PRIDEAUX."

MINING CAPTAINS' HALF YEARLY REPORT.

Dated Gongo Soco, 1st January, 1830.

" Sir,

" It may prove satisfactory to the Board of Directors and yourself, to have at one view the whole account of our mining operations since the month of June last, and have therefore taken the liberty of sending it to you.

“ Hollingsworth’s shaft has been sunk to the middle level, west and a cross-cut driven five fathoms, four feet, six inches, from the level, to make a communication with the said shaft, and one winze sunk three fathoms, four feet, in the bottom of the level.

“ The shallow adit west has been driven four fathoms, three feet, nine inches ; the seven fathom level west has been driven thirty-one fathoms, one foot, and have sunk six winzes to it from shallow adit.

“ Shore’s shaft has been sunk from seven to fourteen fathom level : nineteen fathom, four feet driven west in the last-mentioned level, and three winzes sunk to it from the seven.

“ Crickett’s shaft, which before was two fathoms below the shallow adit, has been sunk to the fourteen fathom level : a cross-cut fourteen fathoms, one foot, six inches, driven to the vein, driven since five fathoms, four feet ; Esperança shaft sunk from seven fathom level to it, and two winzes sunk on the vein from seven fathom level.

“ Lyon’s shaft has been sunk from fourteen fathom level to the middle adit ; ten fathoms, three feet, five inches, driven in the said adit, and one winze sunk to it from fourteen before cutting the vein, driven since westward on the vein twelve fathoms, three feet, and two winzes sunk to it on the vein from fourteen fathom level.

“ A cross-cut, two fathoms, has been driven from the bottom of Lyon’s shaft to the vein : driven since on the vein five fathoms, and behind the shaft five fathoms.

"The shallow adit east has been driven five fathoms, two feet, six inches ; the seven fathom level east, five fathoms, two feet, six inches, and have sunk two winzes to it from the shallow adit.

"In fourteen fathom east we have driven thirteen fathoms, one foot, six inches, and have sunk one winze to it from seven fathom level. In a cross-cut, north of Da Gama's shaft, to cut through the jacotinga, we have driven six fathoms, two feet, six inches : the whole length of the cross-cut is now twelve fathoms, but have not yet got through the jacotinga, or discovered any productive veins.

"Walker's shaft has been sunk from the surface to the seven fathom level ; a cross-cut six fathoms, three feet, driven from the bottom of it to the vein, and another cross-cut at the shallow adit to the vein.

"Tom's shaft has been sunk five fathoms, four feet, six inches ; another shaft at the Cumba sunk four fathoms, driven east on the vein three fathoms, and stoped three fathoms. In the Cumba adit fifty fathoms one inch has been driven, and shafts sunk over it amounting to eleven fathoms, six inches. The Cumba cross-cut has been driven twelve fathoms, two feet, six inches, which now makes its whole length sixty-five fathoms, three feet, six inches, and have not yet got through the jacotinga, there are several veins on it, but the whole of them are poor. A shaft, which is intended for the deep adit, has been sunk fourteen fathoms, four feet, six inches, and a level driven ten fathoms, one foot, towards it from the side of the mountain for air, and for a passage for the stuff from the adit until tram roads can be obtained. In back of shallow adit, east of Williams's shaft, two fathoms

have been stoped. In back of seven fathom level, and bottom of shallow adit, east of Lyon's shaft, thirty-seven fathoms, four feet, have been stoped, and the back and bottom of the same level, east and west of Walker's shaft, sixty-eight fathoms, five feet.

“ In the back of fourteen fathom, and bottom of seven fathom level, east of Shore's shaft, thirty-nine fathom have been stoped; in the back and bottom of the seven fathom level, west of the same shaft, thirty fathoms, four feet; and in the back of middle adit, and bottom of fourteen, west of Lyon's shaft, ten fathoms. We are sorry we cannot furnish you with the measurements for August month, as they were unfortunately mislaid, but if they should come to hand again, and you require them, we will send them to you.

“ Having furnished you with our monthly report, and with an account of the last six months' operations, we now beg leave to lay before you what we purpose carrying on this month, subject nevertheless to such changes or alterations as may be thought necessary.

“ The middle adit, the fourteen, the seven, and the shallow adit ends, east and west, all being on the course of the vein, it is necessary that they should all be driven, some to get under where we know gold is going down, that we may have productive backs to work on, and the others to prove the lode, as we may even in our poorest levels soon discover a good bunch of gold which may leave rich backs for future workings, but as the vein is subject to frequent changes, some days rich and other days poor, and never a regular branch of gold for any considerable length, as in copper or tin mines, it is impossible to make out with any degree of

accuracy a *prospective* report as might be done in those mines. One winze is to be sunk on middle adit east, and another on the middle adit west, which will go down in a promising piece of ground, and in which we have already a good branch of gold. Crickett's shaft is to be sunk to the level of the middle adit, and the shaft going down on the deep adit, which is let as a bargain at reis 10,000 per fathom must go on, that when holed we may begin to drive the said adit westward.

"Tom's shaft will remain idle until the adit be brought to it, to take off the water, and when we have sunk it a little deeper, we intend to drive a cross-cut on the vein, and prove what the ground is below where we had the gold.

"The Cumba cross-cut, which is let as a bargain at reis 8,000 per fathom, ought we think to be driven to see if we can discover any good veins, or whether there is any gold lying under jacotinga upon its north wall.

"The large fine looking quartz lode which we drove through in bringing up the middle adit, ought to be proved, and we purpose putting one or two men to drive five fathoms east, and five fathoms west: put the stuff from the ten fathoms into Lyon's stamps, and let it be stamped separate from the jacotinga, that we may prove how much gold it contains, and whether it would pay for working it. The men in the backs will, as far as we can judge, go on stoping as usual.

"The new deep adit which the Board of Directors have proposed, would, in our opinion, if brought to the mine, be of incalculable worth for the future working of it, and we in-

tend to put six men to commence the work immediately, and go on by such steps as our supplies of plank, &c. will admit of.

“ We have the honor, &c.

(Signed) “ JOHN TREBILCOCK,
 “ J. HAMBLY,
 “ S. PRIDEAUX.”

Dated Gongo Soco, 1st February, 1830.

“ Sir,

“ We have the honor to lay before you our report of the work done in this mine since the 1st ultimo.

“ In the shallow adit, west of Williams's shaft, we have driven two fathoms, one foot, six inches, and have holed the winze mentioned in our last report : the vein is poor.

“ In the seven fathom level, west of Walker's shaft, we have driven two fathoms, two feet, and have holed a winze : the vein was poor, but it is now looking more kindly.

“ In the fourteen fathom level, west of Esperança shaft, we have driven five fathoms, two feet, but the vein was poor.

“ In the middle adit west we have driven six fathoms, five feet, but we find that in consequence of the ground near the vein being very soft, and subject to frequent runs, by which runs we have often lost part of the vein, and the ground left in a dangerous state, we purpose for the future in very soft levels to drive *under* the vein, where the ground is much firmer,

and consequently shall be able to drive much faster. By this method of driving we shall not of course know any thing respecting the state of the vein, but shall sink winzes from the levels above, which after the levels below have drained the ground, will go down firm, and we shall afterwards stope the backs regularly without sustaining any losses from runs, which by driving *on* the vein we could not possibly prevent.

“ In a winze below the fourteen fathom level, towards the last-mentioned end, we have sunk five fathoms, four feet, six inches: it produced a good branch of gold, which still remains in the ends of the winze.

“ In the middle adit, east of Lyon’s shaft, we have driven eight fathoms, four feet, six inches, which produced samples of gold, but the vein at present is poor. We began to sink a winze on the last-mentioned end, but the ground not being well drained, and having come to water, we are obliged to stop it for the present.

“ In the fourteen fathom level, east of Lyon’s shaft, we have driven one fathom, two feet, which produced a sample of gold, but the vein at present is poor.

“ In the seven fathom level, east of Lyon’s shaft, we have driven three fathoms, five feet; it produced a pretty good branch of gold, which still continues.

“ In Crickett’s shaft we have sunk three fathoms, two feet, and expect to get it to the level of the middle adit some time in this month.

“ The Cumba adit is holed, and made complete to Tom’s

shaft. In the cross-cut north of the Cumba, we have driven one fathom, two feet, but have not yet discovered any productive vein.

"In the shaft for the deep adit, we have sunk eight fathoms, and have about eight fathoms more to sink it, which will in all probability be done this month.

"In the back of the shallow adit, west of Williams's shaft, we have stoped twelve fathoms, which was poor.

"In the *new* deep adit, we have made an open cutting twenty fathoms, four feet in length, and soon expect to begin to *drive* an end.

"In the back of the seven fathom level, east of Lyon's shaft, we have stoped ten fathoms, two feet: some of it produced pretty good bunches of gold, and a little still remains in the stopes.

"In the back of the fourteen, and bottom of seven fathom, east and west of Lyon's shaft, we have stoped fourteen fathoms, five feet, which also produced some tolerable bunches of gold, and some still remain.

"In the back of the middle adit, and bottom of fourteen fathom level, west of Lyon's shaft, we have stoped nine fathoms, four feet, which produced immense strong bunches of gold, and some good bunches still remain in sight.

"We have the honor, &c.

(Signed)

"JOHN TREBILCOCK.

"WM. JENNINGS.

"S. PRIDEAUX."

PROSPECTIVE SKETCH.

Dated Gongo Soco, 1st February, 1830.

“Sir,

“ We beg leave with our monthly report, to lay before you what we purpose carrying on in the mine this month.

“ All the levels that are on the vein must be driven as before, to get at expected good or rich ground, and also to prove the ground, which now in some places appears unproductive.

“ As we go on with our levels, winzes must be sunk on the vein to ventilate the mine, and to ascertain the state or value of the vein; many of the winzes which we have already sunk, have produced large quantities of gold.

“ The adit at the Cumba being completed, we intend, as soon as the horse engine is in order, (which we expect will be done in a few days,) to sink the shaft about four feet deeper than its present bottom for a ‘fork,’ and then begin to drive a cross-cut to get under where we had the gold. This cross-cut will give about nine fathoms backs below the old level, and will of course prove whether the gold goes down or not.

“ Crickett’s shaft is to be sunk to the level of the middle adit, and then drive to cut the vein.

“ We have begun to drive on the quartz lode, but have not yet made any trial there of the stuff, nor have we driven the ten fathoms proposed last month, in consequence of the whim on Lyon’s shaft being fully occupied, but as soon as the whim can be spared to draw off the stuff, we shall go on driving it again, and make the proposed trial.

"The new deep adit, which we have begun with six men, must be continued, and if the shaft now going down on the deep adit should be holed before the end of this month, we shall begin to drive westward to get under the present workings at the mine.

"There is a large lode containing jacotinga, &c. about twenty fathoms north of the large lode on which we are now working. We have washed samples from it, which have shewed gold, and we purpose putting one or two men, as they can be spared, to drive a cross-cut from the shallow adit, and if we are so fortunate after we have cut the lode as to get gold, it will open a new field for mining in Gongo, as we shall have immense backs to work upon immediately.

"The Cumba cross-cut, for reasons stated last month, ought to go on, and from its present appearance, we think we are either near some vein, or the north part of the jacotinga.

"We shall go on stoping the backs as usual with as many men as can be spared from the ends, &c.

"We know of no bargains to be let for this month but those already let, and when they with Lyon's wheel pit are finished, our bargains in future will be very little, if any.

"Having nothing more that we can recollect or recommend for the present,

"We remain, &c.

(Signed)

"JOHN TREBILCOCK.

"WM. JENNINGS.

"S. PRIDEAUX."

From Mr. Baird, Engineer, to the Board of Directors.

Dated Gongo Soco, 8th August, 1829.

" Gentlemen,

" I have again the honor of addressing you, transmitting my last month's report, containing what I had mentioned regarding the sketch of our various works uncompleted at Gongo mine, and I now forward with much pleasure our success.

" First. As regards the wheel to start with six stamp heads, some delay has taken place in bringing in the water, which cannot be avoided, because at this season of the year our water is very scanty, consequently great care must be taken to have a sufficient supply from the higher levels, in order that the progress of the canoas and strakes may be thoroughly worked, the importance of which you are already in possession of; however, we shall start the six heads in the course of a week or ten days, the wheel, masonry, and other connections are a very complete job.

" Secondly. The axletree of the little wheel situated below the saw mill is on its birth, and part of the framing ready for other six heads, which will be at full work before next month's report.

" Thirdly. The work for the upright saws is now in a considerable state of forwardness, and if all goes on well, I think we shall be at work in five or six weeks; this will be a most essential machine for dividing our large timber.

" The whim on Macfarlane's shaft is all complete, and has been drawing stuff these three weeks past. The whim on the Cumba shaft was finished last week.

" Captain Lyon has now deemed it expedient to sink in Gongo mine, consequently has given me orders to erect with all speed the whole of the former pump and engine gearing. Immediately sent down the necessary timber from the mountain, and commenced a fortnight ago to frame the shears, travellers, &c. which are now all up ready for the pulleys, rods, &c. which are preparing, we had reserved all the valuable iron work except bolts which are nearly finished ; Captain Lyon is affording us every assistance possible, and if good luck attend us we shall begin to pump by the end of this month. I am happy to inform the Board that the pumps in the engine shaft are in excellent condition, nothing worse than when put in. The twenty feet wheel reported in my last to work twelve heads is for the present laid aside, as I cannot possibly go on with it, for want of more mechanical labour ; you will easily perceive how much we are engaged with the various erections in hand, but as soon as I can possibly spare some labour for that purpose, no time shall be lost in erecting so important a work.

" It is now resolved by Captain Lyon and the Mining Captains to sink Lyon's shaft for a sump in addition to the former engine shaft. Captain Lyon requested my opinion as to the size and power of a water wheel to work an engine with a ten inch box, that is, the ten inch brass barrels which are here, and about the best I have seen ; it was considered that from ten to fifteen fathoms would be the greatest height of the engine lift, but taking for granted that it may be found necessary at a future period to sink deeper than fifteen fathoms below any of the adits, I recommended a good substantial engine wheel to be erected, and as there will be a plentiful supply of water from the new *rego*, together with that from the *presa grande*, I purpose building a wheel

forty feet diameter, forty-two inches wide in the breast, and this I think will be ample power for some years sinking. Captain Lyon with his usual alacrity desired me to commence the said wheel pumps and engine gearing, and to use every possible exertion, constructing the whole upon a simple but substantial principle, which I shall do to the best of my endeavours to complete with speed and economy. I mentioned to Captain Lyon nine months, but I hope we shall be able to finish sooner; much depends upon the supply of carpenters, and I trust some are on their way to us, because much running work is now required for the mine, and sometimes occupies all hands, and often obliges us to do necessary work on Sundays.

"The Board will perceive that the twelve stamp heads connected to the engine wheel must of necessity become very soon silent, at least the greater number, but to assure the Board that nothing which may tend to the interest of the Association is neglected, Captain Lyon and myself have made arrangements, that as soon as the steam engine arrives at Gongo, every exertion possible will be made to connect her to the twelve heads, but I think she will drive eighteen.

"The new *presa*, with which you are doubtless made acquainted by Captain Lyon's dispatches, is going on very well; I am making the abutment wall a most substantial piece of masonry, every facility is at hand, the workmen only requiring to roll the stones from the quarry two or three fathoms, large and of excellent quality, the foundation is fifteen feet thick. I have to raise the stream upwards of thirty feet into the new *rego*, the wall is then finished nine feet thick, hence it may be carried up ten or twelve feet high, dividing into two walls $3\frac{1}{2}$ feet each thick, leaving a space in the middle of two feet

for good puddle, this height will collect an immense reservoir of water, as the valley runs back for some hundred fathoms between two lofty mountains, and will be a great auxiliary in a sterile season. I expect we shall finish the work in one month from this, when the water will then rise into the *rego*, a sketch I will forward when completed.

" The mountain department is going on very well as usual, but we are consuming an immense quantity of timber, indeed it is hardly credible: upwards of 300 fine trees have been shot down this last month from eight to thirty inches diameter, twelve to thirty-six and forty feet long, besides some hundreds of fine poles for useful purposes.

" The boring bits have arrived all safe, and are just what we wanted, I expect they will be found very advantageous. As soon as I can spare a smith to make a few feet of rods, we shall make the experiment at Gongo, I am certain they will prove the *praia* of Antonio Pereira, and may be used with success at Catta Preta, where the experiment shaft was abandoned, at all events they will bring up the matter or formation if skill be exercised in managing the instruments.

" A few days ago, the tilt hammer with its appendages arrived safe, it will be of the greatest service to us in many ways, particularly now when we have so much heavy work to forge. I am most happy to find, that the Board has sent it of wrought iron, it is an excellent job, and I shall fit it up immediately.

" The cast iron stamp heads which we first put in at the same time with the wrought ones, were completely reduced in less than three months, while the wrought are at this day

little or nothing worse ; this shews the excellent quality of our wrought iron when properly manufactured, here the native smiths are improving very much from a few lessons, and are producing us any size we want.

" I beg leave to subjoin a few remarks on the quantity of water at present coming into the mine.

" For example the *presa grande rego* guaged at the top of the mountain as follows :—viz.

" Measured a length of three fathoms being 216 inches, mean width twenty inches, mean depth seven inches, product 30,240 cube inches, divided by 231 the contents of a wine gallon. The above length was run by a cork from guage to guage, every run producing a velocity of 130 gallons, 210 pints, in twenty seconds, the product discharged will therefore be 392 gallons, 168 pints, per minute, to a nearness.

Socorro rego guaged—

" Example—Measured a length of three fathoms, being 216 inches, mean width eleven inches, mean depth three inches, product 7128 cubic inches, divided by 231 (contents as above) the said length was run by the cock from guage to guage, every run producing a velocity of 30 gallons, 198 pints, in six seconds, therefore the product discharged will be 308 gallons, 142 pints, per minute, to a nearness.

" From the above statement, which I think is very near correct, it appears that the total expense of water from the two *regos* does not exceed 701 gallons, 79 pints per minute.

" This quantity of water (viz. 701 gallons, 79 pints,)

discharged over the large wheel, will give her six to seven revolutions per minute, and will lift a ten inch column of water sixteen fathoms high, exclusive of working any stamps ; the above quantity of water I calculate will average about four months of the year, three months one-third more working three stamp heads, five months (rainy season) double quantity working other three heads, so that the full extent will be working six heads and pumping.

" I have the honor, &c. &c.

(Signed) " W.M. BAIRD, C.E."

Dated Gongo Soco, 8th September, 1829.

" Gentlemen,

" Permit me again the honor of addressing you, transmitting my report for August last, and up to the present date.

" First. Since the conclusion of my last report, considerable progress has been made in forwarding the various works formerly noticed : two water wheels geared with six stamp heads each, are both ready to start, water and plank for launders being the only impediment, the water in particular is so scanty at this season, that it retards our operations in various ways, and causes delays quite unavoidable, which must appear to the Board of Directors, but it is impossible for us to do more, on consideration of the very small quantity that we have to supply so many stations on Gongo mine ; for example, our present supply does not exceed on an average during duty hours 600 gallons per minute, this quantity we expend as follows : the first duty is on the great engine wheel, from thence it is divided into two streams, one

passing to the upper canoas and strakes, the other to the station of canoas, situated at the old washing house, thus finishing the above duty, the two streams are again united and collected in the saw mill tank, and a proper portion of water being collected, it passes on to the large wheel that works the saw mill, and other machinery connected therewith; leaving this, it immediately passes over another wheel to work six stamp heads, thence to the lower canoas and strakes. I have, perhaps, dwelt a little too long on this article, but it is with a view to shew the Board what an essential benefit the new *rego* (which I shall have occasion to mention hereafter) will be to Gongo mine, and it must be understood that from the first duty of the water a considerable portion must be lost in its various uses.

"Secondly. Considerable exertion has been made during the last month in the erection of the pumping engine reported in my last, and it is with much pleasure that I congratulate the Board, that having got every connection made to the wheel, and all the pumping gears in good order, and started the engine with six stamp heads yesterday, the whole working admirably well, the wheel makes eight revolutions per minute, a full ten inch box, five feet stroke, discharging 10,500 gallons per hour, the wheel will lift the same quantity fifteen fathoms under the present depth, but observe there is not that quantity of water to drain. I should suppose at present about one half, consequently the engine will be quite master at the western part of the mine, and as Captain Lyon will explain the manner in which the levels are coming into the engine shaft, my opinion is, that the Board may dread no alarm from any thing happening to endanger the workings, as I shall make a point of seeing that great care and attention be paid to every part of the engine,

gears, &c. and I also beg to observe, that we have excellent brass working barrels here, which will immediately be put into working trim.

" Thirdly. We have commenced on the pumping engine for the Cumba mine, I expect it will be at work at the beginning of the next month, it is only a simple apparatus, and will be worked by two mules or so for some time. We have in hand two more whims, one of which will shortly be finished. Work for the upright saws gets on but slowly, I can only spare one man and his boy to it, and that not constantly ; the mechanical labour is now increasing so much at Gongo mine, that it often puzzles me which work to set forward first, particularly that of carpenter's work, the few I have are so distributed that I can only spare a man to each job, from this the Board may see that it is impossible for me to make much progress with all, and on consideration of the greater part being heavy work, and constantly having some of our men sick. Matthews, our principal man, has been unwell for these few weeks, so that I was compelled to bustle about from one place to another, which knocked me up for a few days, but I am now quite recovered. We shall, however, persevere on to forward the most necessary work until our new mechanics reach us, which I hope will not be long, as we have much for them to do.

" Fourthly. Respecting the large engine wheel for Lyon's shaft, we have had a little difficulty in finding an axletree, both as regards size and quality ; we have been unfortunate with two trees turning out bad when cut, but I am happy to say we have procured another very fine piece, and a complement of men and bullocks are this day dispatched to bring it home, and we shall lose not an hour in putting it

in hand; the large hoops are nearly ready at the forge, and the milliers or gudgeons the smiths will commence next week. Our tilt hammer will forge out the crank and all the heavy work, it will save much labour and charcoal, the blowing machine will be erected on the same power that I work the hammer off, but I am fearful that it must remain untouched for two or three weeks, as Captain Lyon is very anxious to have the upright saws in motion, so much plank is now required, that I will lay on all possible force, and I think by next month's report, if all goes on well, it will be at work, which will be just in time for our new *rego*.

" Fifthly. On Monday, the 31st of last month, Captain Lyon visited the works at the new *presa*, when he took a minute survey of the whole, he expressed much satisfaction in the manner I was proceeding with a work which would be fraught with so much advantage to the Association, which he no doubt will very clearly prove to the Board, both as to the economical mode in the erection and its future utility; and it may not be improper to observe to the Board of Directors, that they may have the benefit of my opinion professionally, as to the real value of such a supply of water, which Gongo mine is very soon to reap the advantage of, for without water and wood the mine must of necessity become abandoned: but it is one of the most gratifying communications which I can possibly write to the Board, that both of these essential articles will in one month be abundant, the facility of which, together with a continuance, may be guaranteed for many years. On the same day Captain Lyon visited the forest on the mountain, he likewise expressed his highest approbation of the method this department was conducted in; he took a view, as far as the eye could penetrate, of the virgin forest, and was quite delighted to find himself standing in

the midst of such magnificent timber and immense extent of forest ; I proposed to make him a plan and measurement, including only the forest and roads, shewing the method I purpose for bringing timber during the two seasons of the year, wet and dry ; he desired that I might attend to it immediately, and forward a plan of the same to the Board. I commence with a branch shoot to-morrow, which will supply the mine and saw mill during the rainy season. In conclusion, I beg to return to the afore-mentioned article, water, and to offer one or two observations relative to the new *rego* ;—first, respecting the quantity of water from the summit level, meaning the highest stream, it is to a nearness 520 gallons per minute ; the lower level, that is to say, the stream we are at present raising, gives about 540 gallons per minute, making at the summit level of both streams 1060 gallons ; the waste, &c. by so long a run, I compute about 100 gallons per minute, but to meet this loss, or even more, there are a few small streams that will in my opinion give the deficiency ; we are therefore safe in calculating a supply delivered into the mine for the new *rego* of 60,000 gallons per hour, independent of the new *presa*, which will always give an immense supply when required ; hence it follows, that from a moderate calculation, say to work stamps and engines, washing stations, &c. all of which are designed to be put in operation for the interest of the Association, I estimate the value of this supply at £15,000 per annum ; let me here observe, that I have cut water-courses as feeders to canals, water-works, &c. which have been much higher valued than the sum above stated, and as I have already observed, that without water, the produce of Gongo mine could not in my opinion be kept up to what it is likely to be when all is finished. Every thing is going on well in my department, only, as I before observed, rather slow; my next month's report

will be, I hope, a very satisfactory one, as I expect all the stamps will be at full work, and some progress made with the large engine for Lyon's shaft, upright saws, and engine for Cumba mine, &c.

"Our stationery has arrived all safe: the various plans and sections of all the surface works will be forwarded as soon as I can possibly do them, with the assistance of Mr. Hodson, who I can assure the Board is a very valuable young man in the engineering department. The machine for washing gold shall be put together, and got ready for experiment, as soon as I can possibly spare any body to go about it.

"I have the honor to be,

"Gentlemen,

"Your most obedient Servant,

(Signed) "W.M. BAIRD, C.E."

Dated Gongo Soco, 8th October, 1829.

"Gentlemen,

"Permit me the honor of transmitting the last month's report, communicating the mechanical and other labours under my superintendence at Gongo mine.

"First. I noticed in my last what had occasioned the delay of not working the two water wheels finished with six stamp heads each, the same unavoidable delay still exists in regard to the higher one, namely, the want of plank to make launders to convey the water on to the wheel; the lower one is now at work with three heads, and the other three will be connected in the course of two or three days. Our water is rather

less this month than last, although we have had a few heavy showers: owing to the long continued drought of this season, the ground absorbs the rain the instant it falls, consequently we can do but little, excepting a few hours in the morning during the time the tanks are discharging, and I cannot average more than three or four good hour's work at the saw mill, however the prospect of a plentiful and steady supply from the new *rego* is very near, which will make all go lively.

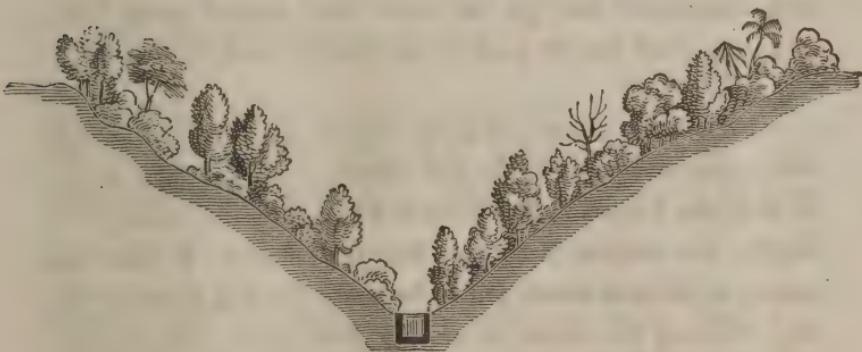
"Secondly. The wall at the new *presa* was finished three weeks ago up to the summit level, and the water gradually rose until it reached the *rego* thirty feet high: we continued it some distance along the course, which appeared to have a good run, the *rego* not being completed, the water in the mean time is allowed to escape in its old course; this is a very excellent piece of masonry, and by Captain Lyon's express desire, I am carrying it up nine or ten feet higher, noticed in a former report, for the purpose of making a spacious reservoir.

"Thirdly. Respecting the upright saw machinery, I expect it will be at work in three weeks time. The pumping engine for the Cumba mine is about ready to be connected. The large wheel for Lyon's shaft has been done but little to at present; much difficulty took place in getting in the axletree, our own bullocks are so completely worn out, that although 38 of them were attached to the piece, they could not stir it, and after much trouble we were obliged to engage natives with their bullocks, which put us off a few days longer; let me here observe to you, that our pasture, literally speaking, is nothing but a red mountain completely burnt up, therefore it may easily be conceived that we are very badly

off respecting the labour from our cattle ; Captain Lyon has endeavoured by every means in his power to effect a more speedy labour in this department, he is beginning to introduce horses, and they seem to offer very fair indeed, and I hope with a little pains in training, will supersede those slow inactive creatures, bullocks ; we have eight horses now on the mountain, and two small wheel carriages, this is only the second week we have had them at work, but taken care of for a few weeks, I am in hopes they will be very effective, and be a great improvement upon the system. The axletree for the large wheel is now rounding up, it requires to be four feet in diameter : I will keep two men upon this work constantly, and whatever more I can spare : we are at present cutting out the arms, 32 in number ; the segments, buckets, and backing, are cut in the country, and are all ready to come to Gongo: it will be a capacious wheel, the situation is very well arranged, and as soon as the foundation is taken out, I will put up a temporary frame of wood, so as the axletree may be immediately placed on its birth, in which case both masons and carpenters can go on with their several parts : due attention shall also be paid to the smith's work.

" Fourthly. The pumping engine goes on admirably well: soon after the engine had started, and the men began to sink, the Captains found there was not water enough to supply the engine with the five feet stroke ; I therefore caused a portable crank pin to be made, by which means we have reduced the stroke to two feet, nine inches, this is quite capable of keeping the water under, and gives an additional power to the wheel, say three more heads, so that had we a sufficient supply of water, the wheel could work twelve heads ; the crank pin is so constructed, that the stroke of the engine can be lengthened by degrees, should the water increase in the engine shaft.

" Fifthly. Respecting the branch shoot mentioned in my last, we commenced it ten days ago, and have cut up the mountain 216 feet, this will be another valuable acquisition to the mine; the first shoot commands the whole of the north west forest, from whence I purpose the supply should come during the dry season, as it is now a great distance from the shoot head; the second or branch shoot commands the whole of the western forest, which part of the mountain is admirably adapted for a shoot, and every inch of the ground shall be taken advantage of to render the cutting easy and expeditious: the top of this shoot enters the forest from whence the trees can be immediately sent down, and will reach the mine a little east of Da Gama's shaft, (*vide Surface Plan*,) a most convenient and central spot, from thence a rail road can be made direct to the saw mill with very little trouble, as the trees proceed to be cut: the shoot is continued practicably up between the sides of two sloping mountains, thus,



by this means the Board will perceive the labour both of men and cattle must be considerably lessened: this shoot and forest will supply the mine during the rainy season. I have to observe further, that I have so laid it out that a branch

can go off to the Cumba mine when that comes to be worked on a larger scale, and it is now gratifying for me to report, however extensive the Board may work Gongo mine, she will be amply supplied with fine timber, with very little cost, comparatively to that which I have seen, and which would now otherwise be.

" In conclusion, I beg to observe, that all the before-mentioned undertakings have met with Captain Lyon's approval, in a very satisfactory manner, and he is affording me every assistance possible.

" I have the honor to be,

" Gentlemen,

" Your most obedient Servant,

(Signed) R.D. BAIRD " W.M. BAIRD, C.E."

Dated Gongo Soco, 7th November, 1829.

" Gentlemen,

" Permit me again the honor of addressing you, communicating the following statement as to the progress of the various works in my department in Gongo mine.

" First. The two water wheels, with six stamp heads each, noticed in my last are now completed, and the whole will be at work in a few days.

" Secondly. The pump in the engine shaft is now complete to the fourteen fathom level, and going on remarkably well; we shall now be able to work nine to twelve stamp

heads consequently off the engine wheel, as the supply of water from the new *rego* is now home at the mine, and on the wheel, I find it will be necessary to increase the motion on the stamp axletree, and consequently have herewith forwarded a sketch of four bevil wheels, and if the Board approve of this, please to let them be sent out with all convenient speed.

" Thirdly. As regards the upright saw machinery, I regret to say little has been done, a portion of the mechanics having been sick, and I was forced to put on those who were well to the running work of the mine, and (as you will readily believe) not a little is now required from the increase of miners lately arrived here; however, I am happy to state, that we this day started the crank and perpendicular slide, which made one of the finest motions that need be required: we commence to fix the saws, carriage, &c. immediately, and we shall soon have this work completed. I am truly glad to see here a reinforcement of mechanics, four arrived a few days ago, who will 'pitch to work' on Monday next at their respective duties.

" Fourthly. Lyon's wheel gets on slowly for want of force, but will go on better now. I purpose working twelve heads off this wheel, as its power will not be required for perhaps one or two years; the spur wheels written for sometime ago, will be the precise motion wanted, which I hope the Board will also forward.

" Fifthly. The new *presa* wall gets on remarkably well, and will be finished in two or three weeks; our new shoot also; this is a work that has exceeded for speed and the smallness of expense any thing that I have had to do with on your

estate at Gongo. The charcoal and forest department go on admirably well, our consumption of charcoal is very considerable, 45 *alqueires* per diem, owing to some very heavy work which the smiths have now in hand.

“ Every thing is going on very cheerfully in my department, all labouring for the general good of the Company.

“ By the last remittance of gold, Captain Lyon forwarded a specimen or two of steel for the inspection of the Board. Captain Lyon I believe with his usual kindness noticed in his dispatches that I now intend making all our own steel for whatever purpose wanted. I have made one or two experiments since, and I am happy to say that I have succeeded by a very simple process in making superior steel to that sent home.

“ On Captain Lyon’s return from Ouro Preto, I will communicate to him the nett cost or expense of manufacturing steel of various qualities at Gongo, and by next post I will transmit a paper through Captain Lyon to the Chairman on the subject.

“ I have the honor to be,

“ Gentlemen,

“ Your most obedient Servant,

(Signed) *Wm. Baird* “ W.M. BAIRD, C.E.”

Dated Gongo Soco, 7th December, 1829.

“ Gentlemen,

“ Permit me again the honor of reporting to you the monthly work under my charge at Gongo.

“ First. As regards the upright saw machinery, every thing was completed on Saturday last, when one saw started, which performed its work admirably well in all points, and she will commence cutting plank for the mine to morrow: in the course of a day or two, another saw will be geared, this is an excellent and well finished piece of machinery, the whole of her gearing being of wrought iron, it will cut from $\frac{3}{8}$ to $\frac{1}{2}$ an inch each stroke, (averaging the hard and soft timber, of which we have so many various qualities here) and make forty strokes per minute. I purpose gearing three saws, which she will work with great ease.

“ Secondly. The large wheel is now working twelve stamp heads by day and nine by night; the supply of water from the new *rego* being at present not quite so regular as it will hereafter be, the wheel working also the pumping engine with perfect ease.

“ Thirdly. I have to congratulate the Board on the completion of the branch shoot, so far as to allow us to send down timber, which we commenced doing on Tuesday last, since which we have sent down upwards of 120 fine trees, most of them for the upright saws: this is another great acquisition to the mine, comprising the whole of the west virgin forest, the shoot is 1200 feet long. On Wednesday or Thursday next, I intend commencing a survey of the whole extent of the mountain forest, and I hope to be able to forward the same to the Board by next post.

“ Fourthly. As the upright saws are now completed, I shall lay on a strong force upon Lyon’s engine wheel, the axletree for which is all lined up, part of her arms dressed up, rings or shrouds have arrived from the country, together

with some of her buckets and backing. The shaft for the twelve stamp heads to be connected is all ready, and I beg the Board will not delay sending out the spur gearing as per sketch formerly sent home, these heads will be another acquisition to us, the site of the wheel being in the midst of a large heap of rich jacotinga, every possible exertion shall be made to get up this wheel and engine as speedily and economically as possible.

“ The wall at the new *presa* is finished, except the completion of four or five feet of cob wall, the labour of which is very trifling. The masonry is excellently well brought up—we have now one man busy making light wheels and carts for the mine, which will greatly assist in the various washing stations, (*vide Surface Plan.*)

“ To facilitate the labour of bringing down timber from the foot of the shoot to the saw mill by bullocks, I have proposed a plan of getting it down by means of an endless chain from a drum rigger to be put on the axletree of the saw mill wheel, over pulleys to a gearing post, to be fixed in the old *talho aberto*, the approach to be made by a wooden rail road, the site is very eligible—Captain Lyon has approved of it, and ordered the chain from Rio, it will be the first thing of the kind in Brazil, though of old merit in England.

“ Captain Lyon informs me, that he daily expects the arrival of two more carpenters, and two pair of sawyers; the carpenters I shall immediately put on to the tilt hammer, which will greatly assist our smiths, and render them independent of the country forges.

“ The sawyers, Captain Lyon purposes putting one pair

to attend the upright saws day and night, and other to the circular ones, this will save all our mechanical labour, which we have so much wanted lately.

“ I have the honor, &c.

(Signed) “ W.M. BAIRD, C.E.”

From Messrs. Warre, Raynsford and Co. Agents at Rio de Janeiro.

TO THE CHAIRMAN.

Dated Rio de Janeiro, 29th August, 1829.

“ Having just heard of an opportunity for London, we avail ourselves of it to annex copy of our respects of the 27th instant, and to enclose duplicate bill of lading and statement of the 86 bars of gold shipped by the Cygnet packet, which vessel proceeded on her voyage yesterday morning. We also beg to annex copies of Captain Lyon’s letters to us of the 18th and 19th instant, and to the same we refer you.

“ His dispatch for the Board of Directors we shall forward by the first good opportunity, the Martin, the present one, being a dull vessel.

(Signed) “ WARRE, RAYNSFORD & CO.”

Dated Rio de Janeiro, 5th Sept. 1829.

“ We very much lament having to acquaint you, that contrary to all expectation, the Legislative Assembly was closed on the 3rd instant by the Emperor in person, but who delivered no speech upon the occasion, merely informing both Houses that the Session was closed.

"Thus the question of reduction of Duty is again unfortunately retarded until the meeting of the Assembly in May next.

"In the mean time it is our intention to apply for an authenticated copy of the opinion of the Committee, and with this to petition the Government to permit your Association either to pay from henceforward only ten per cent. giving bond for the other fifteen, or to pay the full quinto of 25 per cent. on condition of the fifteen per cent. being returned to us, or allowed on future parcels of gold that may be sent to the Intendencia, in the event of a favourable opinion, or *vice versa*.

"We shall be happy if this proposal is acceded to by the Government, but we have our fears. You may however rely on our utmost endeavours to obtain this point, and of our success you shall be duly informed.

"We are anxiously looking for the arrival of the packets, as we are prepared to set the miners on their journey immediately after the passports are obtained."

Dated Rio de Janeiro, 9th September, 1829.

"The miners, we are happy to say, have arrived in good health, and will proceed on their journey the day after to-morrow, under the escort of John Ivey and George Wardle. Mr. Randall waiting the arrival of the Tyrian, when the departure of her party will be equally expedited.

"The post from the mines having come in this morning, enables us to hand you annexed copy of Captain Lyon's

letter to us, to which we beg to refer you. The dispatches for the Board of Directors we shall forward by the next good conveyance."

Dated Rio de Janeiro, 23rd Sept. 1829.

"The Tyrian packet having arrived on the 10th instant, the ten miners proceeded on their journey on the 13th, in company with Mr. Randall."

Dated Rio de Janeiro, 30th Sept. 1829.

"The foregoing is copy of what we had the honor of writing you on the 23rd instant, since when we are without your further favours. Enclosed we beg to hand you copy of Captain Lyon's letter to us of the 18th instant, to which and the accompanying dispatch to the Board of Directors we refer you, congratulating you on the increased produce and promising appearance of your mines. The packet was to have sailed yesterday morning, but at our request Mr. Aston very obligingly postponed her departure till to-morrow, in order to afford us the opportunity of handing you the latest advices from the mines by her, and for the chance of the arrival of the gold, which however we cannot now expect for some few days, particularly as the weather has lately been such as will probably retard Mr. Ash's journey down."

Dated Rio de Janeiro, 8th October, 1829.

"We have the pleasure to acquaint you with the arrival of the Sphynx packet, and by her we have received your much respected favour of the 8th August, (with copy of the

25th July,) the contents of which we duly note, and to the same we shall reply more fully by a vessel to sail for Guernsey on the 11th instant, by which we also shall hand you Captain Lyon's dispatches to arrive by to-morrow's post, embracing the present opportunity to acquaint you of the arrival yesterday of Mr. Ash, who has delivered to us 68 bars of gold, which will be shipped by the Sphynx packet, to sail on or about the 19th instant, should no previous opportunity offer of man of war. In the expectation of the arrival of some miners by the Buenos Ayres packet, we shall detain Mr. Ash until she comes in, in order to accompany them up, and for whose immediate departure we are making the necessary preparations."

Dated Rio de Janeiro, 10th October, 1829.

"The above is copy of what we had the honor of addressing you per the Ninus, to touch at Falmouth, and it is now with the greatest pleasure we enclose to you copy of Captain Lyon's letter to us of the 28th ultimo, communicating the very extensive produce of your mine during the previous eight working days, having taken out no less a quantity than 558lbs. 6oz. 3dwts. Ogrs. on which we most sincerely and heartily congratulate you and the Association in general. As Captain Lyon's dispatch to the Board of Directors goes forward by this opportunity, (the Anley to Jersey,) we refer to it for particulars, expecting the next post's report will be also favourable, as it appears the mine was still looking well.

"As the sailing day for the packet is the 19th instant, the day the post arrives, we have requested Mr. Aston to postpone her departure till the 20th, in order to give you the latest intelligence, which we have little doubt will be acceded to.

"We remain, &c.

"P.S. Since the above, the Lyra packet has arrived, and by her we are in receipt of your favour of the 19th August, the contents of which we duly note, and shall take an early opportunity of replying to it. Twelve miners have come out in the Lyra, whom we are prepared to put on their journey on Tuesday the 13th instant, in company with Mr. Ash."

Dated Rio de Janeiro, 24th October, 1829.

"The 68 bars of gold received from Mr. Ash are shipped by the present conveyance H. M. packet Sphynx, for which you have herewith bill of lading.

"A box of specimens brought down by Mr. Ash we have committed to the charge of the Commander of the Sphynx, and we hope the same may arrive safe, having taken the precaution of having it sewed up in hide.

"The twelve miners who arrived in the Lyra packet proceeded on their journey in company with Mr. Ash, on the morning of the 14th instant.

"We note fifteen more men are coming out in the London, and as she may be shortly expected, we are purchasing horses, and making preparations for their speedy departure for their destination."

Dated Rio de Janeiro, 14th November, 1829.

"Mr. Hill, we have the pleasure to acquaint you, arrived here on the 12th instant, and we have received from him 158 bars of gold, which will be transmitted to you by the

first opportunity of packet or man of war. The sailing of the packet now in harbour is postponed to the 29th instant, but the chances are the Heron sloop of war, expected from Lima, will arrive and sail for England previously, in which case the shipment will be made by her."

Dated Rio de Janeiro, 24th November, 1829.

"The miners by the brig London commenced their journey on the 21st instant, under charge of Mr. Hill.

"The packet is still up for the 29th, and as no man of war is likely to sail previously, she will be the bearer of the gold."

Dated Rio de Janeiro, 28th November, 1829.

"Referring to the above copy of the 24th instant, we have now the pleasure to wait upon you with bill of lading, and statement of the 158 bars of gold shipped on board the Princess Elizabeth packet, Scott Commander."

Dated Rio de Janeiro, 12th to 14th December, 1829.

"The steam engine is at length on its way to Gongo, but for its conveyance we have been obliged to allow the heavy sum of 800 milreis.

"14th. The ship Planter having been detained till this date, enables us to acquaint you with the arrival of Mr. Mason with 95 bars of gold, which are safe in our custody.

The Eclipse packet is appointed to sail on the 18th instant, and by her we shall ship the treasure, sending at the same time the boxes of specimens, with another now received."

Dated Rio de Janeiro, 19th December, 1829.

"The foregoing is copy of what we had the honor of writing you on the 12th and 14th instant, per Planter, and we now beg to hand you bill of lading of the 95 bars of gold brought down by Mr. Mason, shipped on board H. M. packet Eclipse, Griffin Commander. This gentleman has taken charge of a box, containing three smaller ones, containing specimens."

Dated Rio de Janeiro, 5th January, 1830.

"We have much pleasure in informing you that the original of your letter of the 15th November has been duly delivered to us by Lieutenant Colonel Skerrett, who, with his family, arrived here safe and well on the 2nd instant in the Mary Bibby."

Dated Rio de Janeiro, 8th to 19th January, 1830.

"We beg to repeat our assurance of every attention in our power being shewn to Col. Skerrett and his family. The letter for Captain Lyon reached us in time for the post of the 1st instant, and that for Col. Skerrett has been delivered to him.

" 18th. Mr. Hill arrived here on the 10th instant, and delivered to us 69 bars of gold, which will be shipped per H. M. packet Cygnet, appointed to sail on Sunday, the 24th instant: Mr. Hill set off on his return to Gongo on the 14th.

" 19th. Further detention having occurred in the sailing of the transport, affords us the opportunity of transmitting to you copy of Captain Lyon's letter to us of the 8th instant, with his dispatches to the Board of Directors, this instant received."

Dated Rio de Janeiro, 25th January, 1830.

" We beg to refer you to the enclosed copy of our respects of the 8th, 18th, and 19th instant, and to hand you duplicate statement of account current.

" The 69 bars of gold brought down by Mr. Hill, are shipped on board the present conveyance, H. M. packet Cygnet, and for the same we enclose you bill of lading.

" Two small boxes containing specimens addressed to you, are delivered in charge to the Commander of the Cygnet, for which enclosed you have his receipt."

Dated Rio de Janeiro, 9th February, 1830.

" Confirming the foregoing copy of our respects of the 25th ultimo, per H. M. packet Cygnet, we enclose to you second bill of lading, and statement of the 69 bars shipped by her, with copy of Captain Lyon's letters, and by that of the 18th January you will observe, that Mr. Tom was to

leave Gongo on the 1st instant for Sabará, and there receive 40 bars of gold, to proceed with the same for delivery to us, and therefore in about ten days we hope to have the pleasure of seeing him.

"We regret we have not any letter from Captain Lyon by the post arrived yesterday from the mines, which we attribute to the bag being made up during the present month a day earlier than usual, and which Captain Lyon may not have been aware of."

"We hand to you by this opportunity the dispatch which accompanied Captain Lyon's letter of the 18th ultimo, also a parcel containing mine plans, which Sir Thomas Thompson has kindly taken charge of."

Dated Rio de Janeiro, 16th February, 1830.

"We beg to annex copy of what we had the pleasure of addressing you per H. M. B. Cadmus, under date of the 9th instant, and to enclose duplicate copy of Captain Lyon's late correspondence with us, and second statement of sums paid on account of the Association in January. Mr. Macfarlane arrived here on the evening of the 14th, in order to accompany Col. Skerrett and his family to the mines, but they have not fixed any day for their departure. Mr. Dodgson and his lady will, we believe, proceed on their journey on the 18th instant, as were the whole to go together, accommodations on the road for so large a party might not be obtainable.

"Receiving no letter by last post from the mines, leaves us ignorant when we may expect Mr. Tom and his troop, but

we hope they will arrive so as to save the packet, the sailing of which is postponed till the 20th instant—we forward this per the Reward to Guernsey. Col. Skerrett has been introduced by us to the Ministers of the Home and Financial Departments, the Marquis of Barbecena, and Marquis of Caravellas; and Mr. Aston obtained an audience for him with Mr. Calmon, the Minister for Foreign Affairs, yesterday.

“ The Emperor, we fear, will not return from the country previous to Col. Skerrett’s departure, and the chances are he will not have an opportunity of being introduced to him.”

Dated Rio de Janeiro, 2nd March, 1830.

“ We beg to hand you copy of Captain Lyon’s letter of the 17th ultimo, with our reply under yesterday’s date, by which you will observe, that Mr. Tom and Mr. Peters arrived here on the 26th ultimo, the latter delivered to us 68 bars of gold, which we have shipped on board the fine A. l. ship, Robert Finnie, Samuel Downing Commander, for which you have enclosed bill of lading and statement of value. The Captain binds himself to deliver the gold at the Bank of England for 1 per cent, free of all expense, and has also taken charge of a box of specimens on the same terms, and we sincerely wish the whole safe to hand.”

Dated Rio de Janeiro, 8th March, 1830.

“ The annexed is copy of our respects of the 2nd instant per the Robert Finnie, and enclosed we beg to hand you second bill of lading, with duplicate statement of the 68 bars of gold shipped by her, and copies of the other documents to serve in case of need.

" By the Skylark packet arrived yesterday, bound to Buenos Ayres, we have received your letters of the 9th January, duplicate, original per Tyrian packet yet to arrive, and original of the 20th January.

" We observe the instructions you have given to your Chief Commissioner, whenever he sends a despatch to the Board, that it may be accompanied with two single letters, (one to be marked duplicate, and the other triplicate), which agreeably to your desire we shall forward to you by the first two vessels (after the original is gone forward) sailing for the British Channel, Bristol or Liverpool.

" The ten miners are arrived, and we are taking steps for their early procedure to the mine.

" P S. The Tyrian packet is arrived."

AN ACCOUNT OF THE PRODUCE
OF THE
Gold Washings,

FROM THE 1ST OF JULY, TO THE 31ST OF DECEMBER, 1829.

From the Stamps
(included.)

1829.	lbs. oz. dw. gr.	lbs. oz. dw. gr.	lbs. oz. dw. gr.
July 1		4 9 0 12	
2		3 1 0 8	
3		4 8 14 12	
4	3 0 0 0	8 6 14 0	
6		2 2 7 12	
7		2 1 6 8	
8	2 7 8 18	11 6 8 0	
9		13 1 3 9	
10		23 8 10 18	
11		8 5 18 0	
13	4 6 5 2	6 11 18 6	
14		9 7 14 16	
15		14 8 12 16	
16		17 4 11 0	
17		8 8 7 12	
18	3 10 10 0	15 9 8 22	
20	2 8 0 0	11 6 11 0	
21	1 6 12 23	9 10 14 0	
22		11 4 16 12	
23		9 4 11 20	
24	2 4 18 4	10 0 16 7	
25		6 7 7 12	
27	3 1 10 7	8 1 9 0	
28		10 9 18 12	
29		6 10 2 0	
30		3 0 12 0	
31	3 9 14 5	9 2 5 16	
			252 5 0 8
carr ov.....	27 6 19 11		

120

From the Stamps
(included)

	lbs.	oz.	dwt.	gr.	lbs.	oz.	dwt.	gr.	lbs.	oz.	dwt.	gr.
1829. brought ov.....	27	6	19	11					252	5	0	8
Aug. 1					4	4	0	5				
3					3	5	1	18				
4					7	9	14	0				
5	2	7	10	2	12	11	3	0				
6					15	0	10	6				
7					19	3	12	12				
8	3	9	15	16	26	11	1	6				
10					11	4	5	18				
11	4	10	0	15	15	3	5	10				
12					13	7	19	12				
13					8	2	19	18				
14					14	10	4	12				
15	6	10	6	8	20	6	7	18				
17	4	4	13	0	6	8	10	18				
18					7	6	6	20				
19					8	1	14	23				
20	4	9	13	0	5	4	11	12				
21	4	5	10	0	6	7	9	0				
22					10	10	16	12				
24					5	9	18	18				
25					4	11	6	18				
26					3	6	10	18				
27					2	8	12	18				
28	2	11	0	0	4	0	16	12				
29					8	3	7	18				
31	2	5	1	6	8	0	17	6				
									256	5	5	16
Sept. 1					10	0	5	12				
2					12	7	13	18				
3					6	6	15	12				
4					6	5	15	6				
5	5	4	0	3	12	6	2	0				
7					4	10	7	0				
8	2	11	11	7	8	11	6	17				
									62	0	5	17
carr ov.....	73	0	0	20								
carried over.....					570	10	11	17				

From the Stamps
(included)

	lbs.	oz.	dw.	gr.	lbs.	oz.	dw.	gr.	lbs.	oz.	dw.	gr.
1829. brought over.....	73	0	0	20	62	0	5	17	508	10	6	0
Sept. 9					5	0	0	0				
10					3	4	11	6				
11					4	4	6	12				
12	2	8	19	16	9	11	12	12				
14	2	8	11	15	7	4	6	0				
15					9	4	3	0				
16	0	1	6	0	20	5	7	0				
17					23	8	0	0				
18	6	1	0	1	26	3	3	0				
19	2	0	5	11	20	11	5	18				
21	4	11	10	0	20	10	19	12				
22					37	8	3	12				
23	9	0	0	0	137	0	0	0				
24	5	6	0	0	69	2	18	6				
25	9	2	0	0	140	11	10	0				
26	3	0	0	0	68	1	0	0				
28	0	8	1	4	63	8	6	0				
29					13	10	8	18				
30					14	10	7	12				
									759	0	13	23
Oct. 1					9	0	7	18				
2	11	9	18	0	19	7	12	0				
3					4	0	15	14				
5	0	8	17	0	12	6	18	10				
6					13	0	9	12				
7	8	0	17	0	30	0	6	18				
8					23	3	14	0				
9	6	5	8	0	8	5	4	0				
10					13	10	13	20				
12 Emperor's Birth Day												
13					6	8	9	0				
14					7	4	8	2				
15					21	3	13	17				
16					14	10	0	12				
carried over.....	130	4	13	4	184	2	13	3				
carried over.....									1267	10	19	23

From the Stamps
(included)

	lbs.	oz.	dw.	gr.	lbs.	oz.	dw.	gr.	lbs.	oz.	dw.	gr.	
1829.	brought over.....	130	4	13	4	184	2	13	3	1267	10	19	23
Oct.	17	6	1	5	0	16	9	0	0				
	19					2	10	14	17				
	20					3	2	8	0				
	21	1	2	12	0	9	0	2	0				
	22					6	9	3	12				
	23					7	0	12	0				
	24	2	11	16	0	12	8	10	12				
	26					5	10	4	0				
	27					5	0	19	0				
	28					6	0	0	0				
	29	0	16	0	31	0	0	2	0	8	1	16	0
	30					16	0	11	0				
	31		1	11	13	0	17	1	4	18			
										300	9	18	14
Nov.	1					5	8	4	0				
	3					11	0	14	0				
	4					16	9	18	12				
	5					7	11	8	0				
	6					5	8	10	8				
	7	2	2	5	0	11	11	13	0				
	9					8	3	12	0				
	10					13	1	12	18				
	11					14	3	6	12				
	12					16	6	11	0				
	13					10	6	2	0				
	14	4	8	16	16	17	9	18	10				
	16					7	7	2	0				
	17					15	3	16	12				
	18					24	6	4	0				
	19					15	11	12	0				
	20					18	3	7	12				
	21	4	2	18	6	26	4	3	20				
	23					14	8	5	0				
	24					19	3	2	0				
	carroov.....	153	9	19	2	281	9	3	8				
	carried over.....									1568	8	18	13

123

From the Stamps
(included)

	lbs.	oz.	dw.	gr.	lbs.	oz.	dw.	gr.	lbs.	oz.	dw.	gr.
1829. brought over.....	153	9	19	2	281	9	3	8	1568	8	18	13
Nov. 25					19	3	12	12				
26					13	3	0	12				
27					6	9	17	12				
28	2	10	4	13	8	9	12	2				
30					14	8	19	12				
									344	8	5	10
Dec. 1					12	6	13	12				
2					15	11	0	0				
3					15	0	7	13				
4					15	8	3	12				
5	6	4	6	0	16	0	9	0				
7					3	10	2	0				
8					9	7	6	12				
9					15	8	1	0				
10					11	2	16	0				
11	1	0	16	18	9	1	3	12				
12					9	9	5	16				
14	3	2	15	10	6	9	12	0				
15					9	7	19	12				
16					7	0	18	0				
17					9	2	18	0				
18					3	4	9	0				
19	4	6	5	20	9	7	9	17				
21					2	6	1	0				
22					2	7	2	12				
23					17	6	14	0				
24	3	0	2	2	18	3	4	12				
25 } Holidays												
26					3	10	18	0				
28					5	2	9	0				
29					2	4	0	0				
30					7	6	14	8				
									240	1	17	18

Total produce from the Stamps

in the last six months 174 10 10 3

Total produce of the half year, lbs. 2153 7 1 17

UNTS

uly to the 31st December, 1829.

CREDITOR.

	£ s. d.
on the 30th June, 1829	49,512 18 9
19 18s. 10d. Stock New 4 per cents. 1826 ...	136 19 11
a small piece of Gold weighing 6oz. 9dwts. d.....	25 1 8
inclaimed Shares.....	15 0 0
ps purchased	18 18 0
of Shares.....	125 7 0
per Cygnet Packet.....	4,211 6 0
Sphynx	10,129 0 2
Princess Elizabeth .. .	24,424 15 11
Eclipse	14,239 11 10
Cygnet .. .	10,103 3 5
Robert Finnie	3,121 5 9
	66,229 3 1
	£116,063 8 5

sociation, exclusive of the Costs of the Mines
led thereon—

ra	£54,544 5 7
eiro.....	21,688 11 9
e names of Trustees, New 4 per Cents, 1826, Stock	10,132 6 1
s. Frys and Chapman.....	£2,651 6 8
nt to Gongo Soco	885 0 0
zilian Mining Shares	
d Specimens	

d Accounts of the

tors,

STATEMENT OF THE ACCOUNTS

Of the Imperial Brazilian Mining Association, from the 1st July to the 31st December, 1829.

DEBTOR.

	£ s. d.
To Cost of £130 5s. 6d. Stock, New 4 per cents. 1826, purchased with the October Stock Dividend	136 19 11
Dividend paid in November on 10,000 Shares	30,000 0 0
Appropriation from the November Dividend invested in the purchase of £3152 1s. 9d. Stock, New 4 per cents. 1826 ...	3,333 6 8
Mining Implements, Houses, Horses, Mules, &c. &c.....	5,747 12 10
Salaries and Wages	11,480 0 1
General Expenses	9,906 16 10
Furniture purchased for the Office.....	29 6 6
Miners' Apparel	885 0 0
Balance	54,544 5 7
	£116,063 8 5

CREDITOR.

	£ s. d.
By Balance in hand on the 30th June, 1829	49,512 18 9
Dividend on £6849 18s. 10d. Stock New 4 per cents. 1826 ...	136 19 11
Cash received for a small piece of Gold weighing 6oz. 9dwts. 11grs. at 77s. 6d.....	25 1 8
Dividend on five unclaimed Shares.....	15 0 0
Discount on Stamps purchased	18 18 0
Fees on Transfer of Shares.....	125 7 0
28 Bars of Gold, per Cygnet Packet.....	4,211 6 0
63 Do Sphynx	10,129 0 2
153 Do Princess Elizabeth ...	24,424 15 11
95 Do Eclipse	14,239 11 10
69 Do Cygnet	10,103 3 5
22 Do Robert Finnie	3,121 5 9
—	66,229 3 1
440 Bars of Gold	£116,063 8 5

The Account of the Duty on Gold extracted from the Mine, to the 31st of December, 1827, is not finally settled with the Brazilian Government.

ASSETS of the Association, exclusive of the Costs of the Mines and Sums expended thereon—

Balance as per contra	£54,544 5 7
Deposit at Rio Janeiro.....	21,688 11 9
Reserve Fund in the names of Trustees, New 4 per Cents, 1826, Stock	10,132 6 1
Debt due by Messrs. Frys and Chapman.....	£2,651 6 8
Miners' Apparel sent to Gongo Soco	885 0 0
Five unclaimed Brazilian Mining Shares Office Furniture and Specimens	

We, the undersigned, having carefully examined the Books and Accounts of the Association, certify this Statement to be correct.

Signed—H. J. BROOKE, } Auditors.
Tho: STOKES. }

*Special General Meeting, held at the London
Tavern on Thursday, 4th March, 1830.*

JOSHUA WALKER, Esq. in the Chair.

The Notice for convening the Meeting was read from the London Gazette of Friday the 5th February, which notice stated, that the Meeting was held in pursuance of the 10th and 35th clauses of the Deed of Settlement, for the purpose of electing three Directors in the places of Isaac Lyon Goldsmid, Esq Thomas Gibson, Esq. and John Wray, Esq. who vacated their seats in the Direction by lot this day, but who, being re-eligible, offered themselves for re-election; and also for the election of an Auditor in the place of Wm. Oxenford, Esq. who retires.

The 10th and 35th clauses of the Deed of Settlement above referred to were read, and there being no other Candidates, it was

Resolved unanimously,

That Mr. I. L. Goldsmid be re-elected a Director of the Association.

Resolved unanimously,

That Mr. Thomas Gibson be re-elected a Director of the Association.

Resolved unanimously,

That Mr. John Wray be re-elected a Director of the Association.

Mr. Goldsmid returned thanks for himself and his colleagues.

The Chairman stated that two Proprietors, qualified agreeably to the Deed of Settlement, had signified in writing to the Secretary their desire of being Candidates for the Auditorship.

Their letters were read. One was from Thomas Stokes, Esq. dated 6th February, and the other from Abraham John Valpy, Esq. dated same day.

The Chairman proceeded to state, that he had this morning received a letter from Mr. Valpy, withdrawing his name in favor of Mr. Stokes.

This letter having been read to the Meeting, it was

Resolved unanimously,

That Mr. Thomas Stokes be elected Auditor of the Association.

Mr. Stokes returned thanks, and the Meeting separated.

L. J. SIMOENS,
Sec.

Half Yearly General Meeting, held at the London Tavern on Wednesday, 12th May, 1830.

JOSHUA WALKER, Esq. in the Chair.

The Notice for convening the Meeting was read from the London Gazette of Tuesday the 27th April.

The Minutes of the last half yearly General Meeting of the 13th November, and Special General Meeting of the 4th March, were read and confirmed.

The Directors' Eighth Report, and the Auditors' Statement of Accounts for the half year ending December 31st, 1829, were read.

Resolved unanimously,

That the Report and Statement of Accounts now read be received, and that the same, together with an Appendix, containing the information received by the Directors since the last General Meeting, and communicated by them to the Shareholders, be printed, and a copy thereof delivered to each Proprietor.

Resolved unanimously,

That this Meeting do confirm the Dividend of Three Pounds Ten Shillings per Share as fixed by the Directors in their Report.

Thanks were voted to the Chairman and Directors, and the Meeting broke up.

L. J. SIMOENS,
Sec.

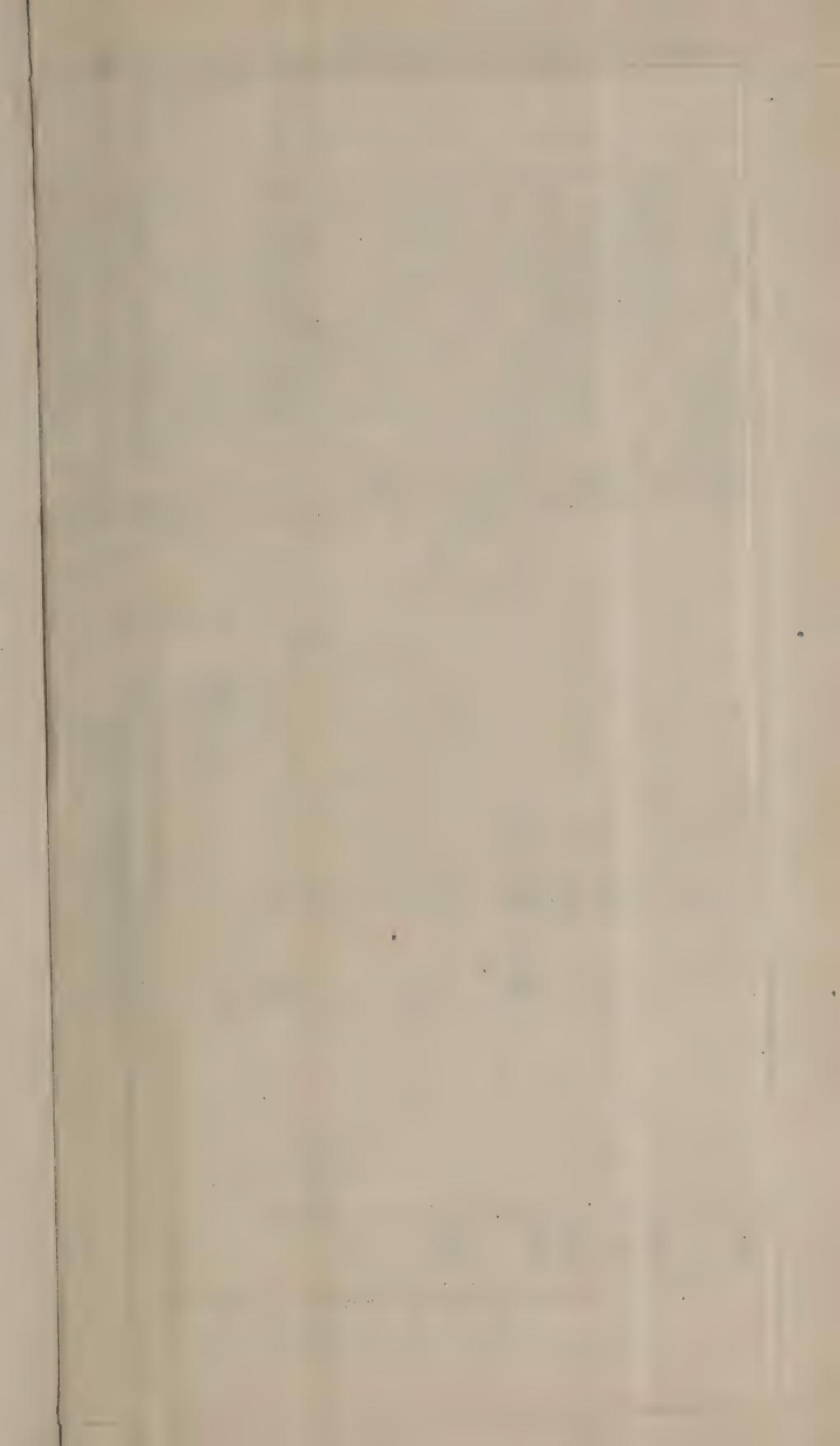
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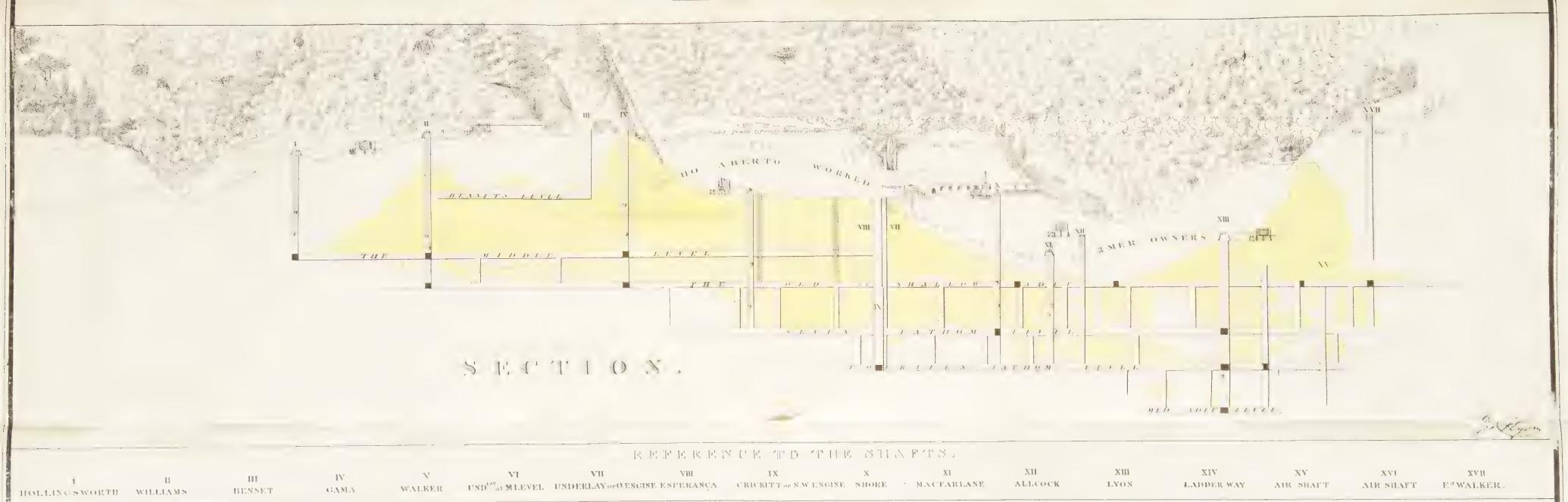
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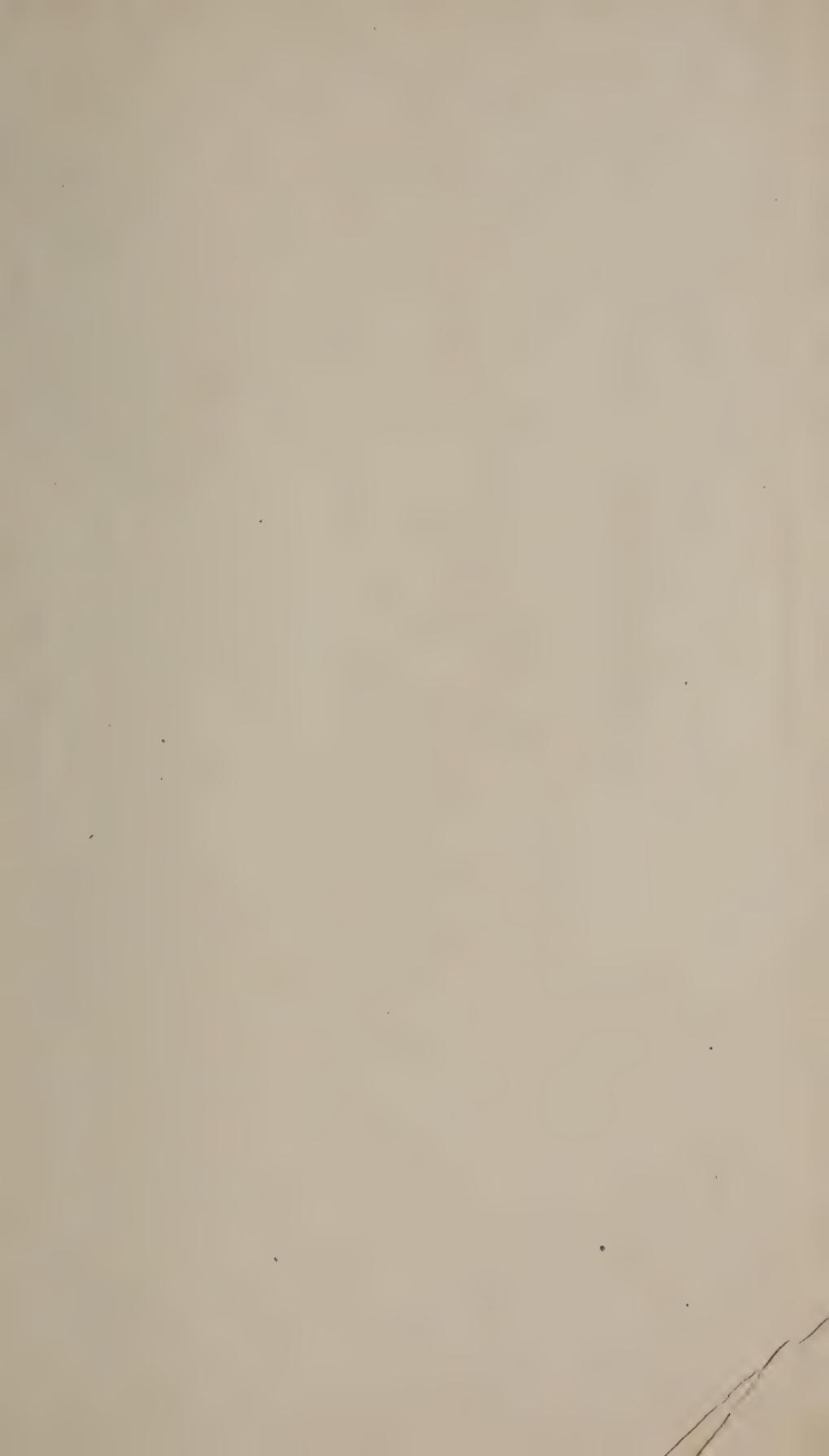
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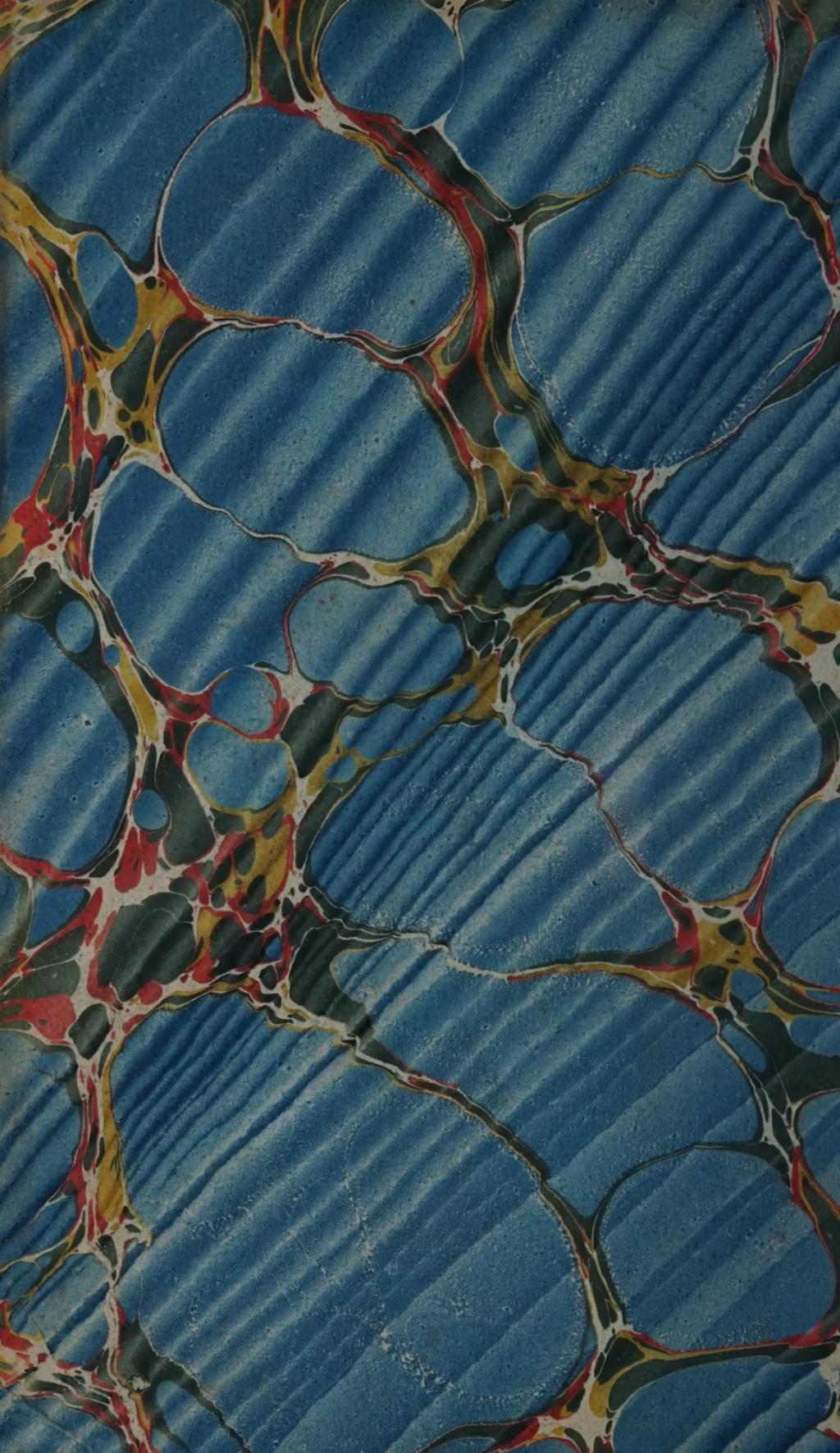
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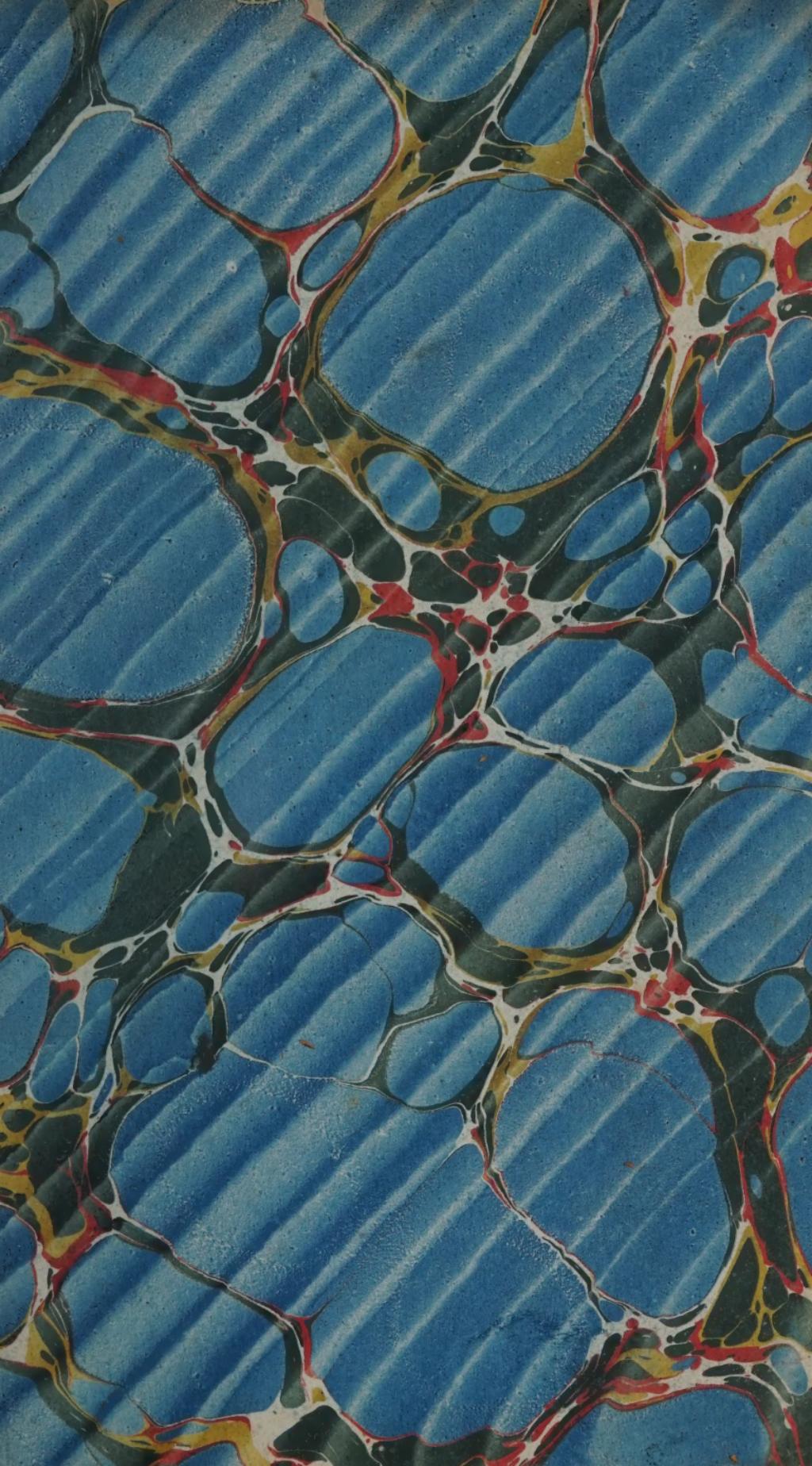
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REPORT OF THE DIRECTORS
8 1829



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